

# BODY COMPONENTS—XJ VEHICLES

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## GENERAL BODY SERVICE INFORMATION

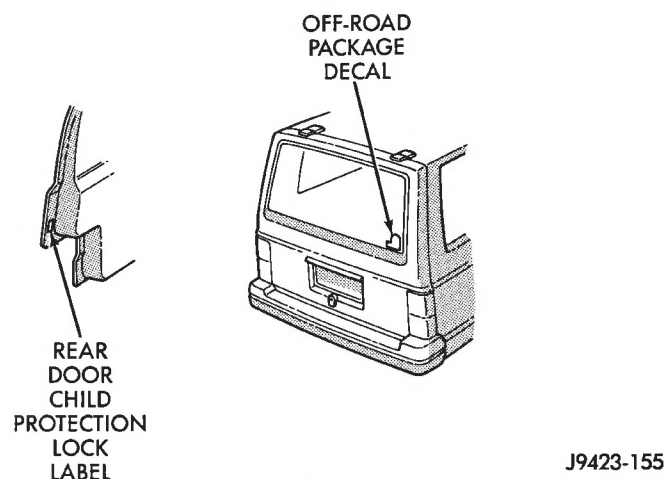
### RIGHT HAND DRIVE VEHICLES

The XJ Body Components procedures in this section were developed on a left hand drive (LHD) vehicle. Unless a component is unique to a right hand drive vehicle, it will not be specifically covered in this section, i.e. cargo barrier. In general, components on left hand drive vehicles will be located on the opposite side in right hand drive vehicles.

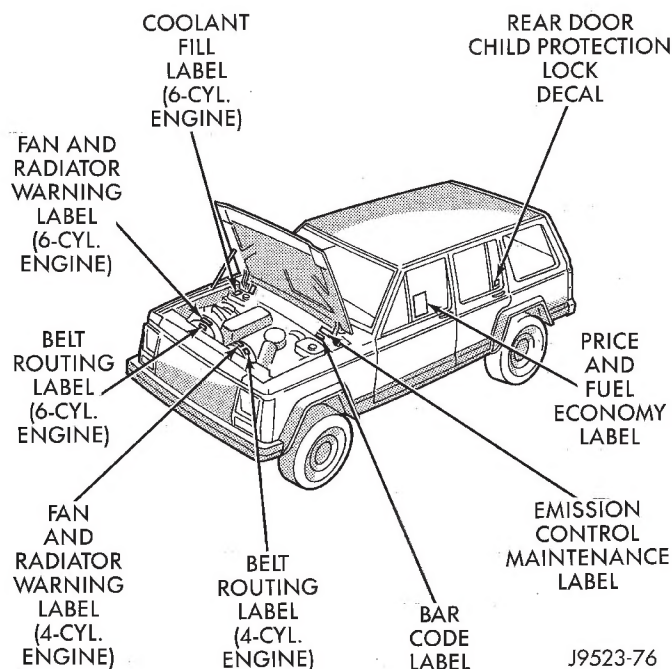
### LABELS/DECALS/PLATES—XJ

Most of the labels that are affixed to the vehicles (Fig. 1 through 5) contain safety or maintenance information. If a body component or window glass are replaced, a replacement label should be installed. In most cases, label location on right hand drive (RHD) vehicles will be on the opposite side of the vehicle.

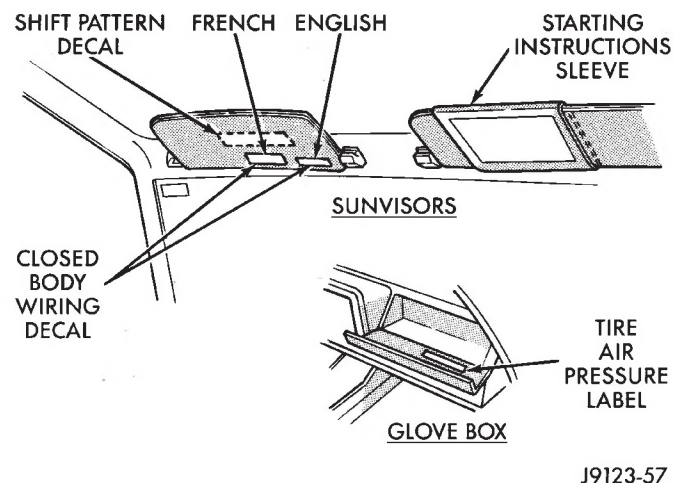
Refer to the Introduction of this manual for more information involving labels and plates.



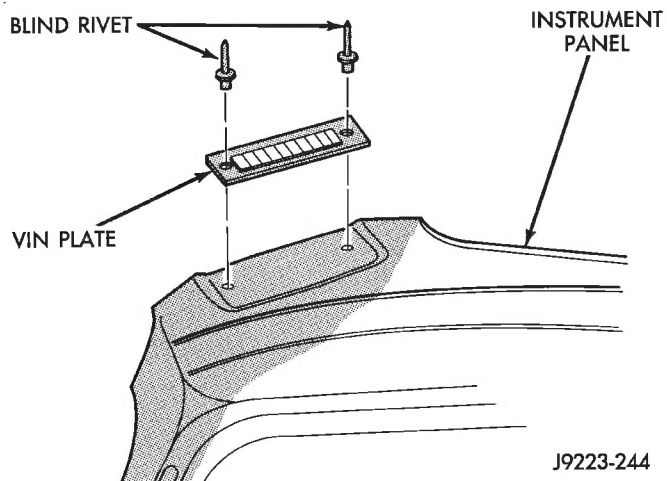
**Fig. 2 XJ Exterior Labels/Decals**



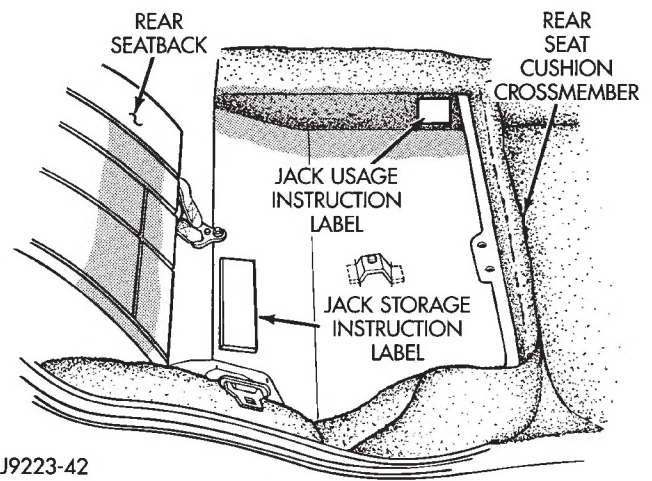
**Fig. 1 XJ Underhood & Window Glass Labels/Decals**



**Fig. 3 XJ Interior Labels/Decals**



**Fig. 4 XJ VIN Plate**



**Fig. 5 XJ Jack Usage & Storage Instruction Labels**

## EXTERIOR COMPONENTS

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## BRUSH GUARD—XJ

## REMOVAL

(1) Remove the bolts and washers that attach the brush guard (Fig. 1) to the side sills.

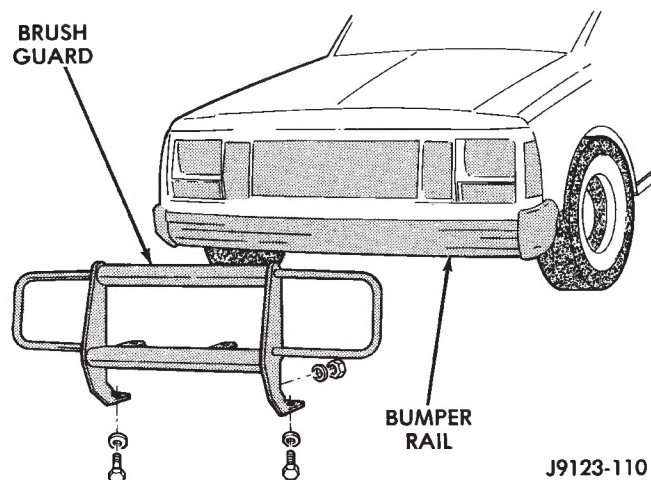


Fig. 1 Brush Guard Removal/Installation

(2) Remove the nuts and washers that the attach brush guard to the bumper. Remove the brush guard from the bumper.

## INSTALLATION

(1) Position and support the brush guard on the bumper. Install the attaching washers and nuts.

**Do not tighten the nuts until the brush guard is properly positioned on the vehicle and aligned.**

(2) Install the bolts and washers to attach the brush guard to side sills.

(3) Align the brush guard and tighten the bolts.

## GRILLE AND GRILLE OPENING PANEL (GOP)—XJ

## REMOVAL

(1) Remove the screws and grille (Fig. 2) from the grille opening panel (GOP).

(2) Remove the screws, side marker lenses and the headlamp bezels from the grille opening panel (GOP) (Fig. 3).

(3) Remove the headlamps and park/turn signal lamps from the GOP (Fig. 4).

(4) Open the hood.

(5) Remove the nuts that attach the grille opening panel (GOP) to the bracket on radiator support cross-member.



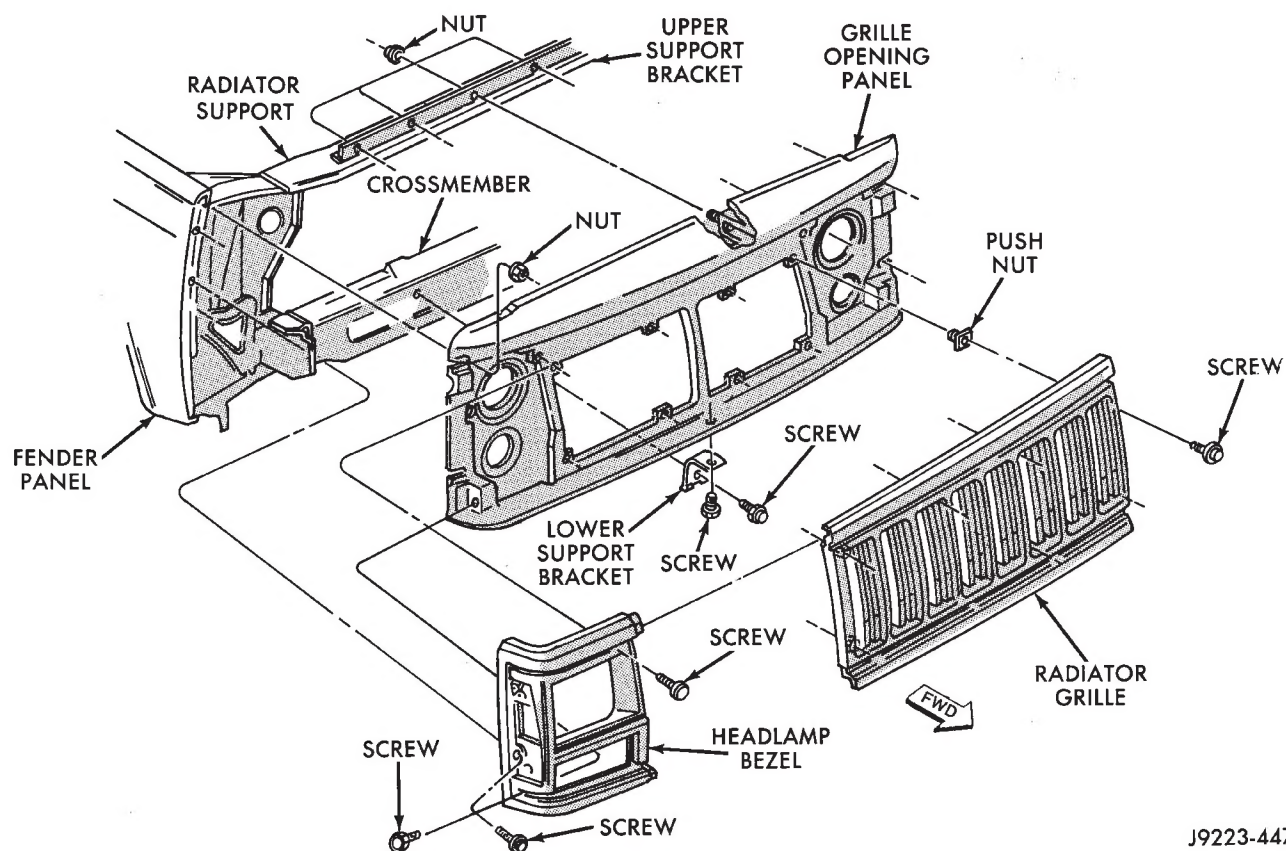


Fig. 2 Grille & GOP

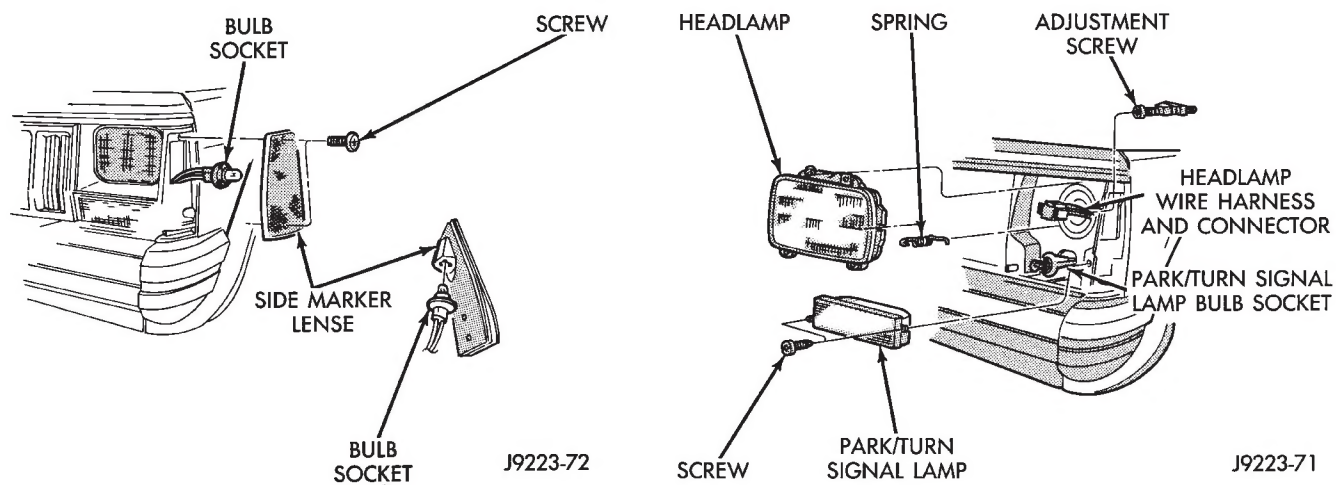
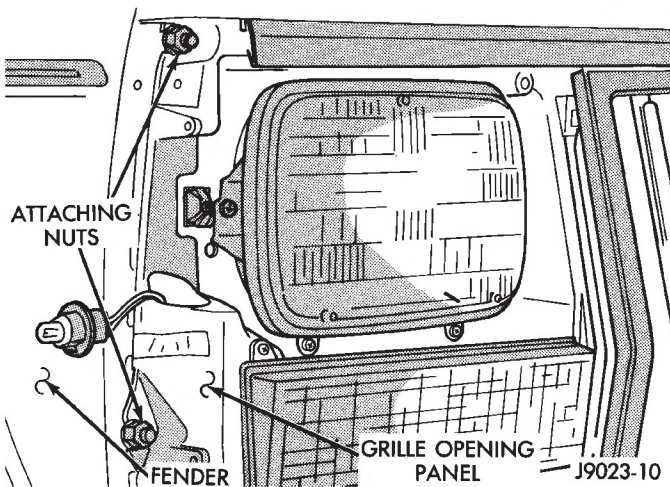


Fig. 3 Side Marker Lamp Removal/Installation

Fig. 4 Headlamp & Park/Turn Signal Lamp Removal/Installation

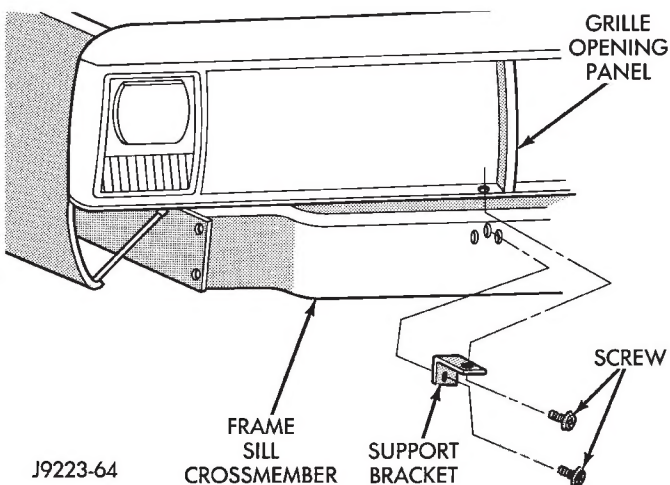


(6) Remove the nuts that attach the grille opening panel (GOP) to the front fenders (Fig. 5).



**Fig. 5 GOP Attaching Nuts At Front Fender**

(7) Remove the screws that attach the grille opening panel (GOP) support bracket to the front sill crossmember (Fig. 6).



**Fig. 6 Crossmember-to-GOP Support Bracket**

(8) Pull the grille opening panel (GOP) forward and disconnect the clips and all the front lamp harness connectors (Fig. 7).

(9) Remove the grille opening panel (GOP) from the vehicle.

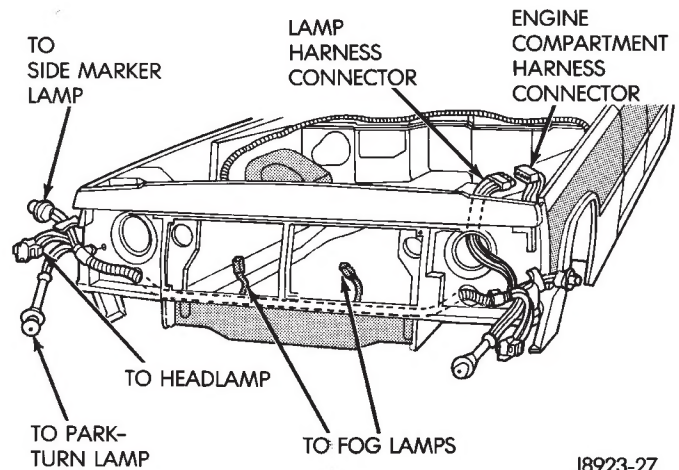
(10) If necessary, remove the air inlet baffles from GOP (Fig. 8).

## INSTALLATION

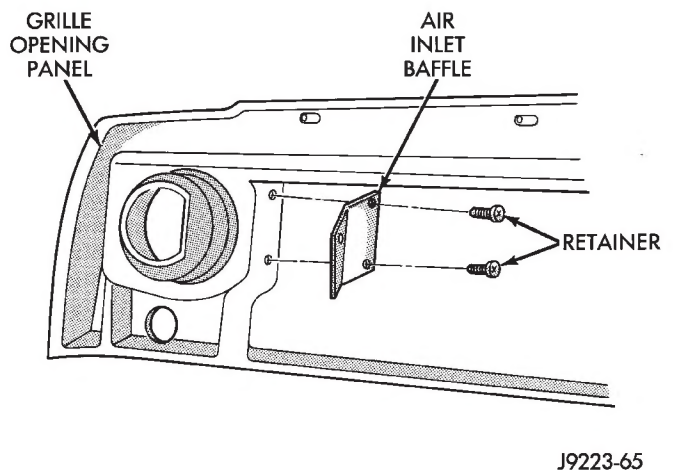
(1) Place the grille opening panel (GOP) on bumper and connect all front lamp wire harness connectors.

(2) Position the grille opening panel (GOP) on the vehicle and install the side and upper nuts. Tighten nuts to 7 N·m (58 in-lbs) torque.

(3) Install the screw to attach grille opening panel (GOP) to the crossmember support bracket. Tighten the screw to 1 N·m (11 in-lbs) torque.



**Fig. 7 Front Lamp Wire Harness Connectors**



**Fig. 8 GOP Air Inlet Baffles**

(4) Install headlamps and park/turn signal lamps in GOP.

(5) Install the headlamp bezels on the GOP. Tighten the screws to 1 N·m (13 in-lbs) torque.

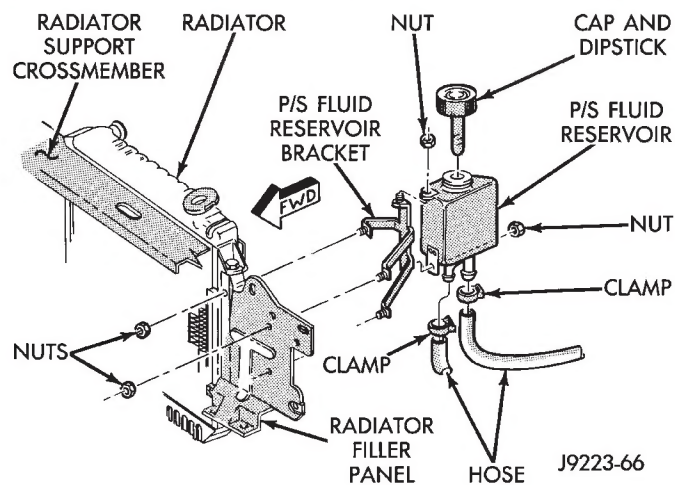
(6) Install the side marker lenses and screws on the grille opening panel (GOP). Tighten the screws to 1 N·m (13 in-lbs) torque.

(7) Install the grille on the GOP. Tighten screws to 1 N·m (13 in-lbs) torque.

(8) Adjust the headlamp aim, if necessary. Refer to the headlamp beam adjustment procedure within Group 8L.

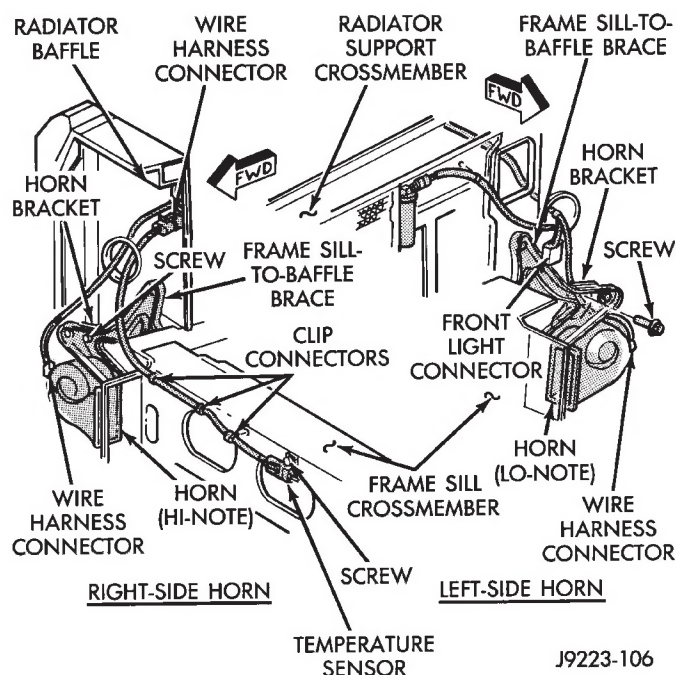
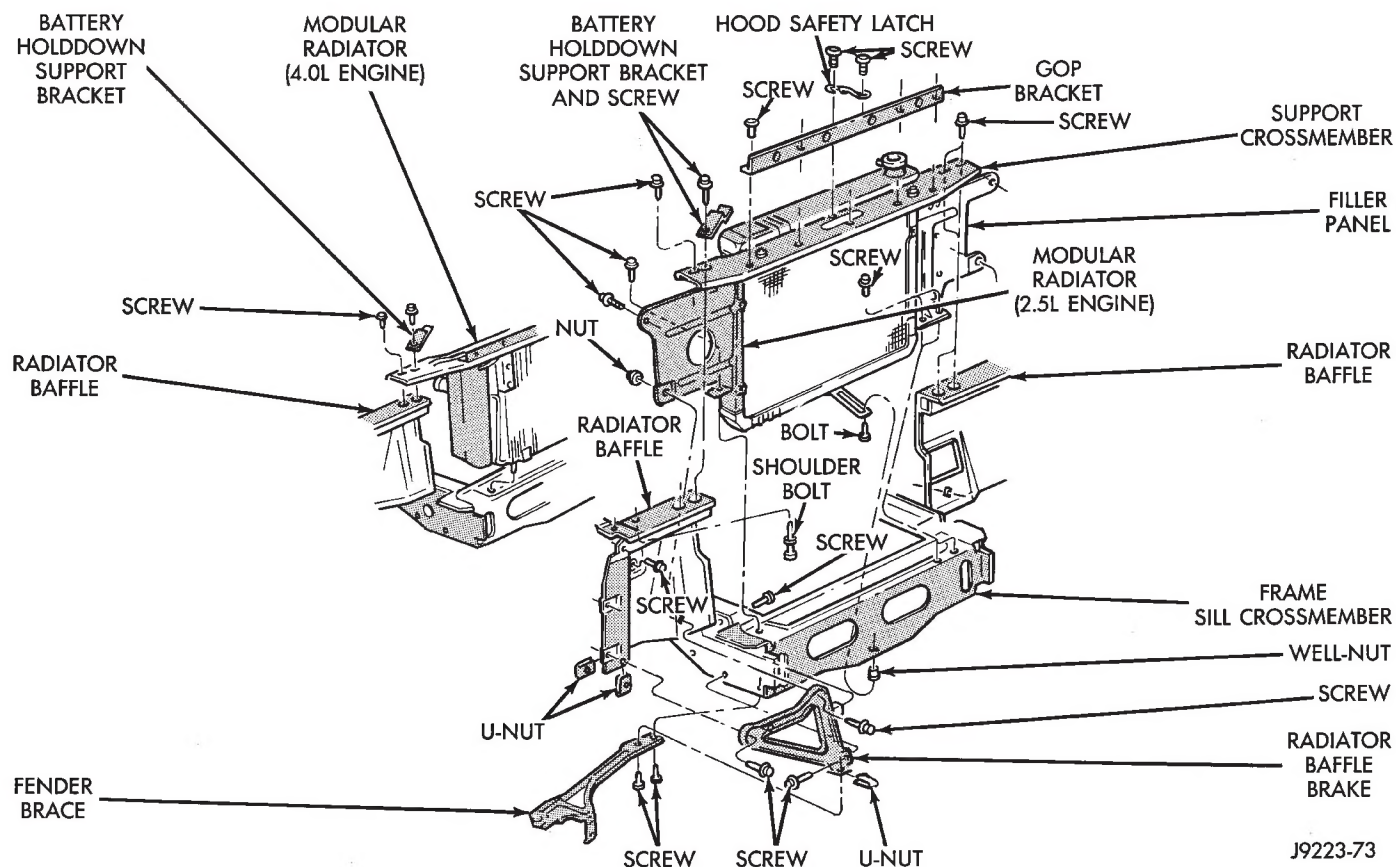
**RADIATOR SUPPORT CROSSMEMBER—XJ****REMOVAL**

- (1) Remove the grille opening panel (GOP).
- (2) For 2.5L engines, remove the power steering pump reservoir from the left filler panel (Fig. 9).

**Fig. 9 P/S Pump Reservoir Removal/Installation**

- (3) Remove the radiator support crossmember and radiator from the front of vehicle (Fig. 10).

- (4) If additional disassembly is required, remove the horns, baffle braces and the wire harnesses from the baffles (Fig. 11).

**Fig. 11 Horns, Baffle Braces & Wire Harnesses****Fig. 10 Radiator Support Crossmember & Modular Radiator**

**INSTALLATION**

(1) If removed, install the horns, baffle braces and the wire harnesses on the baffles (Fig. 11).

(2) Position the radiator and the radiator support crossmember at the front of vehicle (Fig. 10). Install and tighten screws to 9 N·m (76 in-lbs) torque.

(3) For 2.5L engines, install the power steering pump reservoir on the left filler panel (Fig. 9).

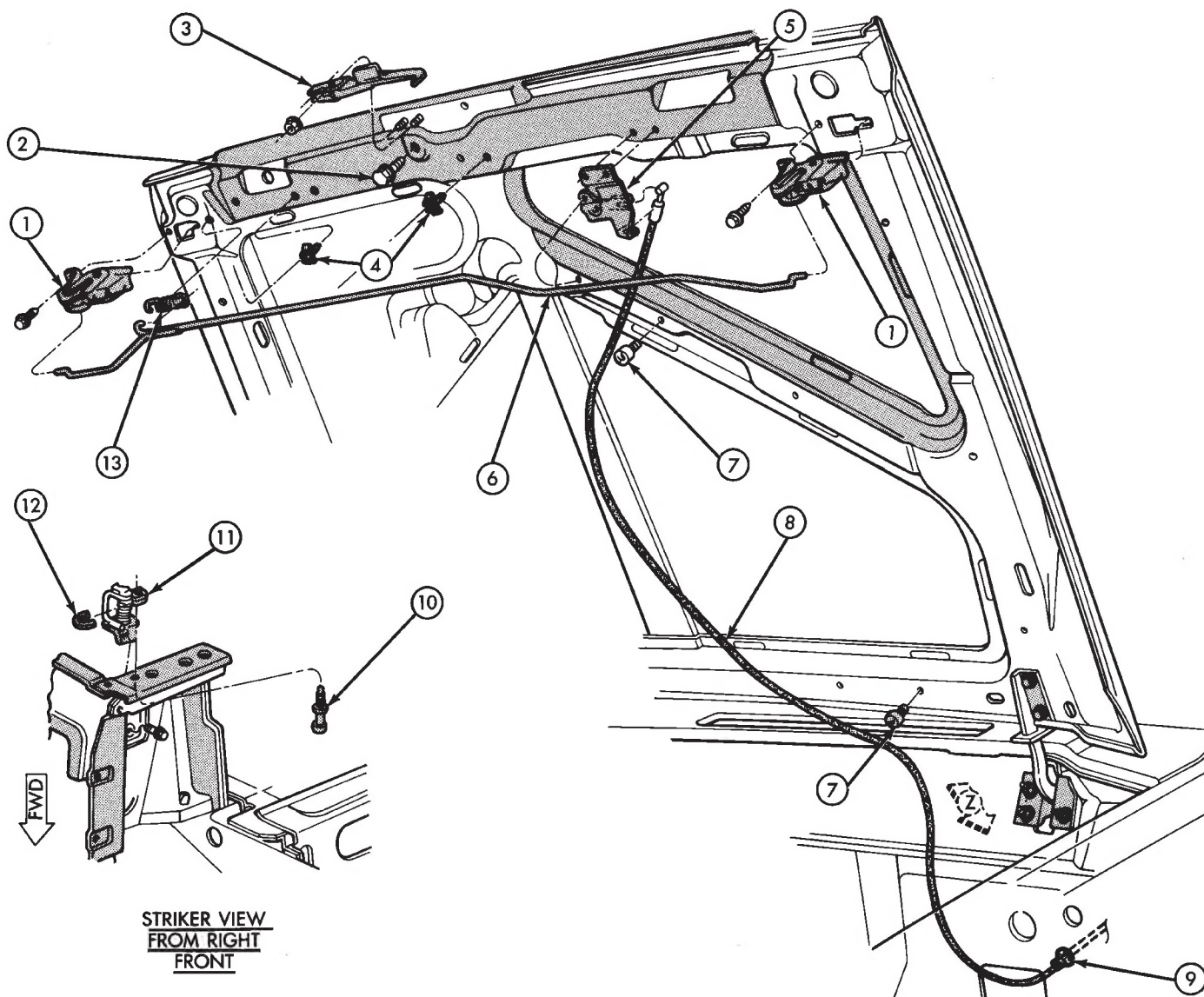
(4) Install the grille opening panel (GOP).

**HOOD—XJ**

The hood service procedures included in this section include:

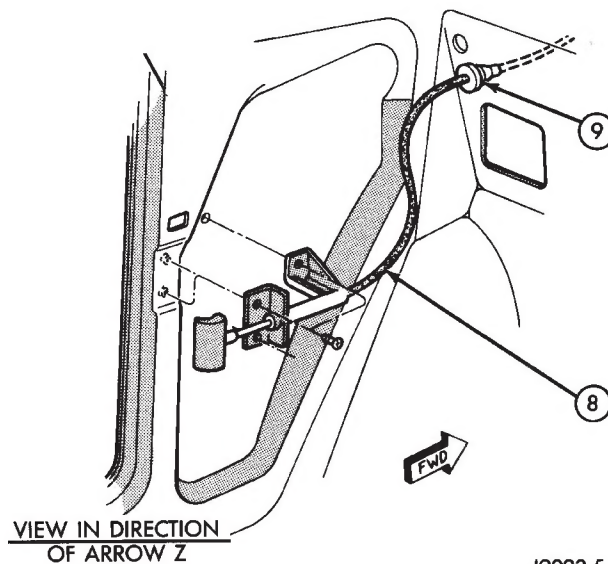
- Hood removal and installation.
- Hood adjustment.
- Hinge—latch—striker service (Fig. 12).
- Latch release cable service.





STRIKER VIEW  
FROM RIGHT  
FRONT

1. LATCH
2. BUMPER
3. CATCH
4. CLIP
5. BELLCRANK
6. ROD
7. CLIP
8. CABLE
9. GROMMET
10. SHOULDER BOLT
11. STRIKER
12. SHIM
13. SPRING



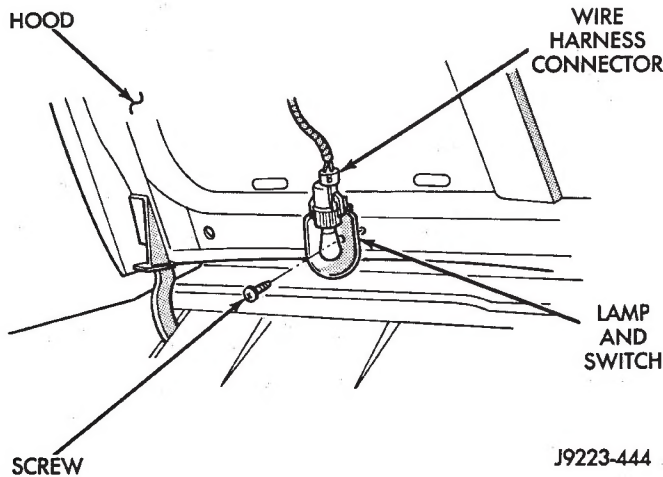
VIEW IN DIRECTION  
OF ARROW Z

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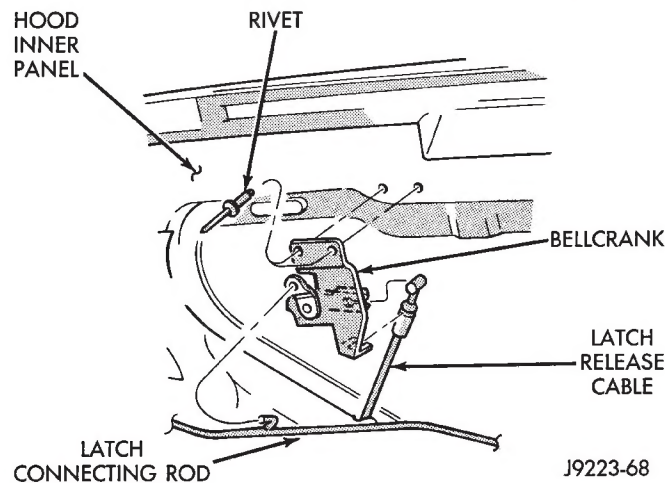
**Fig. 12 Hood Latches, Rod, Release Cable, Striker & Safety Latch**

**HOOD REMOVAL**

- (1) Raise hood.
- (2) Disconnect the underhood lamp wire harness connector, if equipped (Fig. 13).

**Fig. 13 Underhood Lamp**

- (3) Drill out and remove the rivets that attach the hood release cable bellcrank to the hood (Fig. 14).

**Fig. 14 Hood Release Cable Bellcrank**

- (4) Disconnect the bellcrank from the latch connecting rod and the release cable. Remove the bellcrank from the hood.

- (5) Remove the latch release cable clips and remove the cable from the hood (Fig. 12).

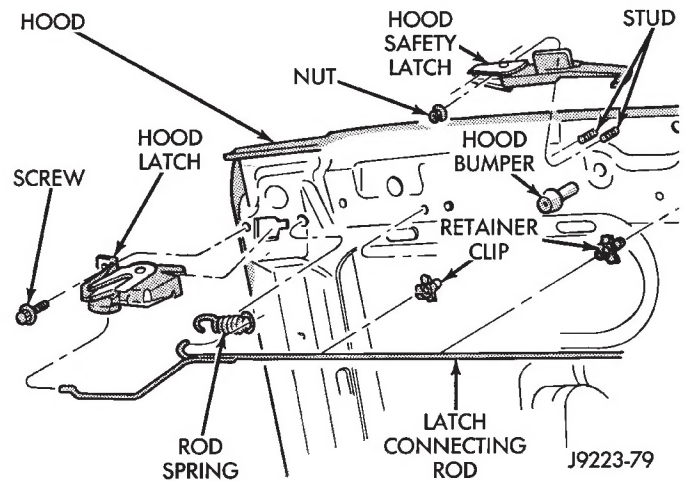
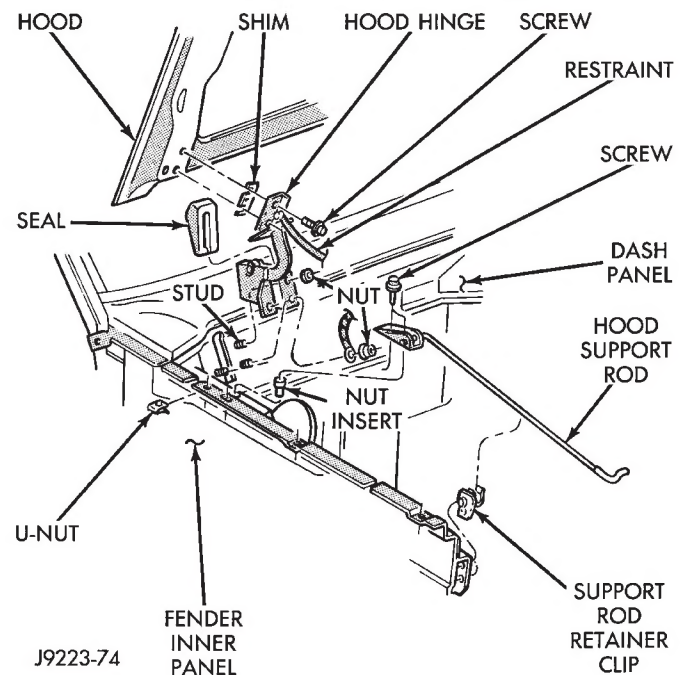
- (6) Remove the screws that attach the latches to the hood (Fig. 15).

- (7) Disconnect the latches from the hood and latch connecting rod. Remove the latches from the hood.

- (8) Remove the nuts that attach the safety latch to the hood. Remove the safety latch from the hood.

- (9) Remove the clips and latch connecting rod from the hood.

- (10) Mark the location of hood, the hinges and the hinge shims for installation (Fig. 16).

**Fig. 15 Hood Latch & Safety Latch****Fig. 16 Hood Hinges and Support Rod**

- (11) Remove the screws that attach the hinges to the hood. Remove the hood from the vehicle with the aid of a helper.

- (12) Remove the insulation panel from the hood (Fig. 17).

**HOOD INSTALLATION**

- (1) Install the insulation panel on the hood.

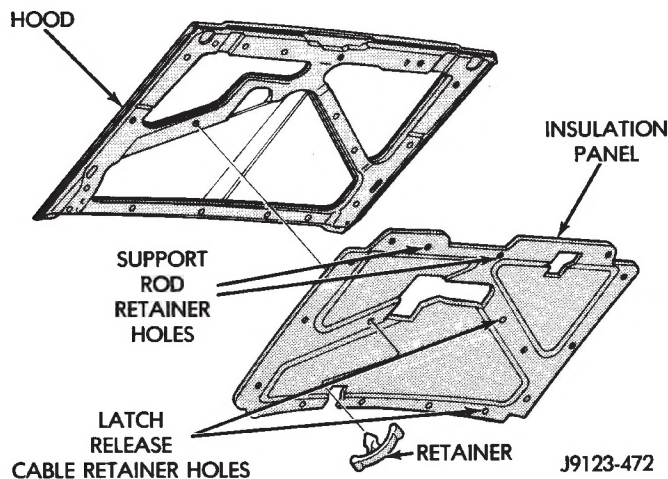
- (2) Position the hood on the shims and hinges; finger-tighten the hinge bolts.

- (3) Align the hinges and shims with the reference marks. Tighten the hinge bolts to 30 N·m (22 ft-lbs) torque.

- (4) Connect the latch release cable and latch connecting rod to the bellcrank.

- (5) Position the bellcrank on the hood and install the rivets.





**Fig. 17 Hood Insulation Panel**

- (6) Attach the latch release cable to the dips.
- (7) Connect the latches to the latch rod and position them on the hood.
- (8) Install the screws to attach the latches to the hood.
- Tighten the screws to 9 N·m (77 in-lbs) torque.
- (9) Position the safety latch on the hood and install the attaching nuts. Tighten the screws to 13 N·m (115 in-lbs) torque.
- (10) Test latch release cable and latches for proper operation.
- (11) Connect the underhood lamp wire harness connector.
- (12) Inspect the hood for proper alignment and adjust as necessary.

### HOOD ADJUSTMENT—XJ

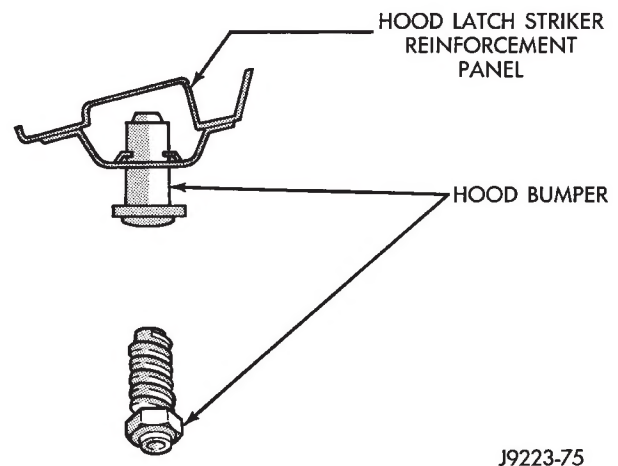
The hood bolt holes are elongated for fore and aft and side-to-side adjustment.

- (1) If hood is low to the cowl panel, insert shims between the hinge and hood at the rear hinge bolts.
- (2) Adjust the hood bumper (Fig. 18) in or out to provide proper hood-to-fender height alignment.
- (3) Adjust the hood strikers (Fig. 19) with shims as necessary. Tighten the screws to 22 N·m (16 ft-lbs) torque after adjustment.
- (4) Align each latch and striker so that the striker enters latch squarely.

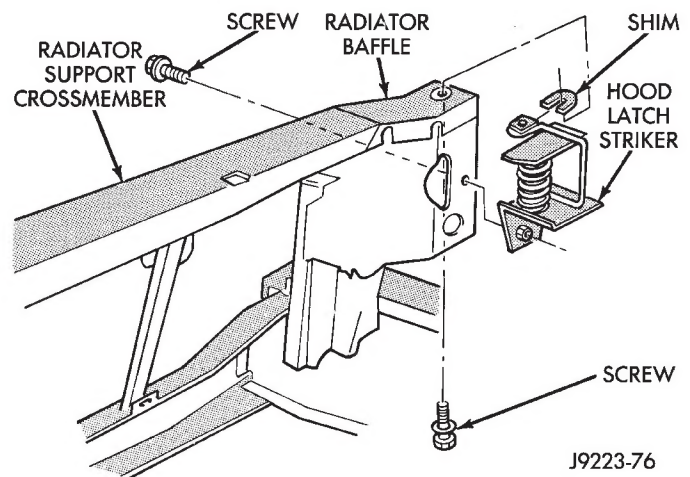
### HOOD HINGE REPLACEMENT—XJ

#### REMOVAL

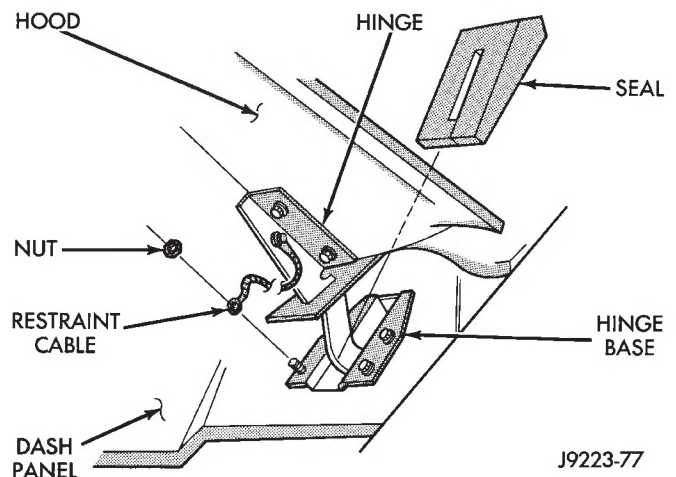
- (1) Remove the hood from the vehicle.
- (2) Remove the seal from the hinge base (Fig. 20).
- (3) Remove the hinge retaining nuts from the studs.
- (4) Remove the restraint cable and hinge from the cowl panel.



**Fig. 18 Hood Bumper**



**Fig. 19 Hood Latch Striker**



**Fig. 20 Hood Hinge and Seal**

#### INSTALLATION

- (1) Position the hinge over the studs and place the restraint cable on the right side, lower stud.



(2) Install the hinge nuts on the studs. Tighten the restraint cable nut to 4 N·m (38 in-lbs) torque. Tighten the remaining nuts to 9 N·m (77 in-lbs) torque.

**If a replacement hinge seal is being installed, position it around the hinge arm, force it against the hinge base.**

(3) Position the hinge seal around the hinge arm and on hinge base.

(4) Install the hood.

(5) Adjust the hood as necessary.

## HOOD LATCH REPLACEMENT—XJ

### REMOVAL

(1) Remove the screw that attaches the latch to the hood inner panel (Fig. 15).

(2) Disconnect the latch from the hood and latch connecting rod. Remove the latch from the hood.

### INSTALLATION

(1) Connect the latch to the latch connecting rod and position it on the hood inner panel.

(2) Install the screw that attaches the latch to the hood inner panel.

(3) Tighten the screw to 9 N·m (77 in-lbs) torque.

(4) Test the operation of the latch release cable and latch.

## HOOD LATCH STRIKER REPLACEMENT—XJ

### REMOVE

(1) Remove the grille opening panel (GOP).

(2) Remove the screws that attach the striker to the radiator baffle (Fig. 19).

(3) Remove the striker and shims from the baffle.

### INSTALLATION

(1) Position the shims and striker on the radiator baffle and install the screws.

(2) Tighten the screws to 21 N·m (15 ft-lbs) torque.

(3) Test the striker/hood alignment by opening and closing the hood several times. Adjust the striker, if necessary.

## LATCH RELEASE CABLE REPLACEMENT—XJ

### REMOVAL

(1) Drill out the bellcrank to hood rivet heads and remove the rivets (Fig. 14).

(2) Disconnect the bellcrank from the latch rod and the latch release cable. Remove the bellcrank from the hood.

(3) Disconnect the latch release cable from the clips on the hood.

(4) Remove the left cowl side trim panel.

(5) Remove the cable bracket screws from the cowl side panel.

(6) Pull the cable through the dash panel and remove it from under the instrument panel.

### INSTALLATION

(1) Insert the replacement cable end through the hole in the dash panel into the engine compartment.

(2) Pull the cable forward and seat the grommet in the dash panel.

(3) Position the cable bracket on the cowl side panel and install the screws. Tighten the screws to 13 N·m (111 in-lbs) torque.

(4) Install the left cowl side trim panel.

(5) Connect the cable and latch rod to the bellcrank.

(6) Position the bellcrank on the hood and install the rivets.

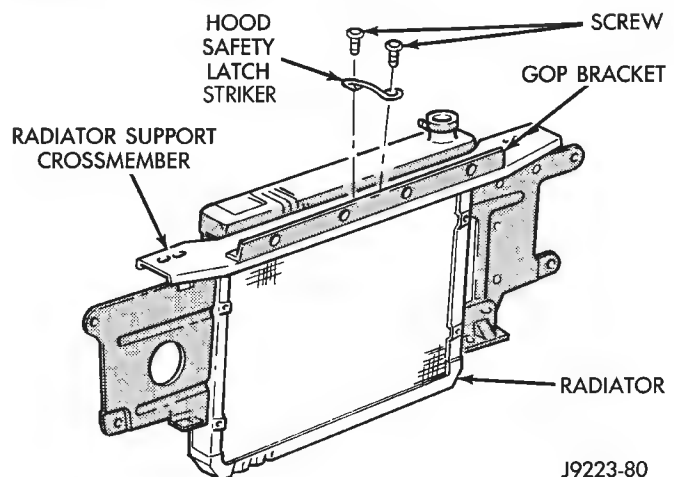
(7) Attach the cable to the clips.

(8) Test release the cable for proper operation.

## SAFETY LATCH STRIKER REPLACEMENT—XJ

### REMOVAL

(1) Remove the striker screws from the radiator support crossmember (Fig. 21).



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**Fig. 21 Hood Safety Latch Striker—2.5L Engine (Typical)**

(2) Remove the striker from the crossmember.

### INSTALLATION

(1) Position the striker on the radiator support crossmember and install the screws. Tighten the screws to 9 N·m (77 in-lbs) torque.

(2) Test the safety latch operation.

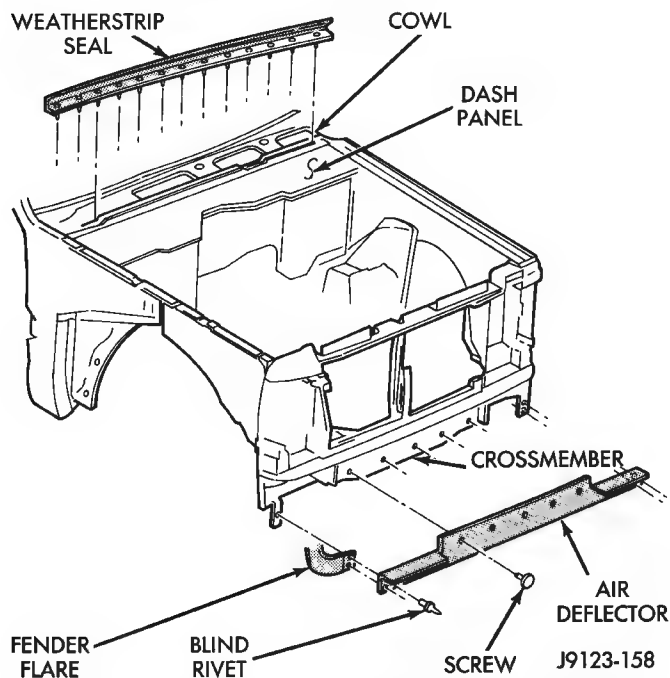
## COWL WEATHERSTRIP SEAL/CROSSMEMBER AIR DEFLECTOR—XJ

### WEATHERSTRIP SEAL REPLACEMENT

(1) Pry upward along the length of seal (Fig. 22).

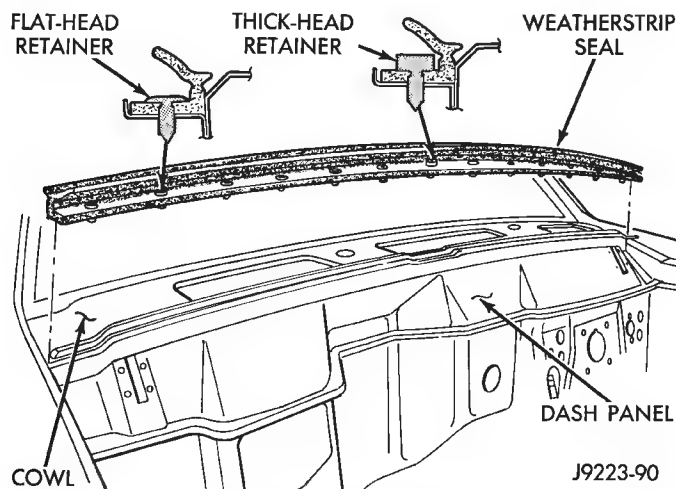
(2) Detach the seal retainers from the cowl panel.

(3) Remove the seal from cowl panel.



**Fig. 22 Cowl Seal and Crossmember Air Deflector**

(4) Position the weatherstrip seal on the cowl panel. Press to insert retainers into the cowl panel holes (Fig. 23).



**Fig. 23 Cowl Seal and Retainers**

#### **CROSSMEMBER AIR DEFLECTOR REMOVAL**

- (1) Remove the rivets that attach the air deflector to the fender flares (Fig. 22).
- (2) Remove screws that attach air deflector to the crossmember.
- (3) Remove the air deflector from the crossmember.

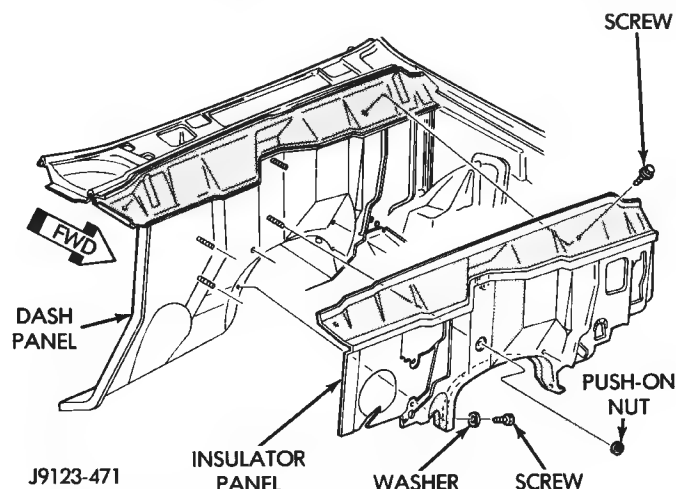
#### **CROSSMEMBER AIR DEFLECTOR INSTALLATION**

- (1) Position the air deflector on the crossmember.
- (2) Attach the air deflector to the crossmember with the screws.
- (3) Attach the air deflector to the fender flares with blind rivets.

### **DASH PANEL INSULATOR PANEL—XJ**

#### **REMOVAL**

- (1) Remove the push-on nuts from the studs (Fig. 24).



**Fig. 24 Dash Panel Insulator Panel**

- (2) Remove the screws that attach the panel to the dash panel.
- (3) Remove the insulator panel from the dash panel and engine compartment.

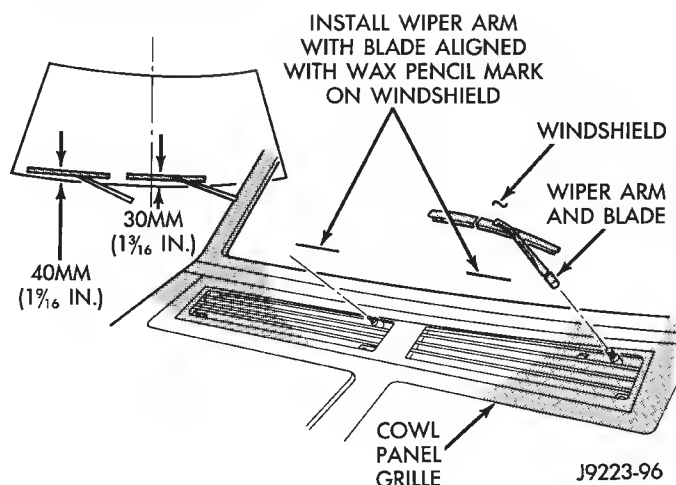
#### **INSTALLATION**

- (1) Position the insulator panel on the dash panel.
- (2) Install the push-on nuts on the studs.
- (3) Attach the panel to the dash panel with screws. Tighten the screws to 2 N·m (18 in-lbs) torque.

### **COWL GRILLE AND SCREEN—XJ**

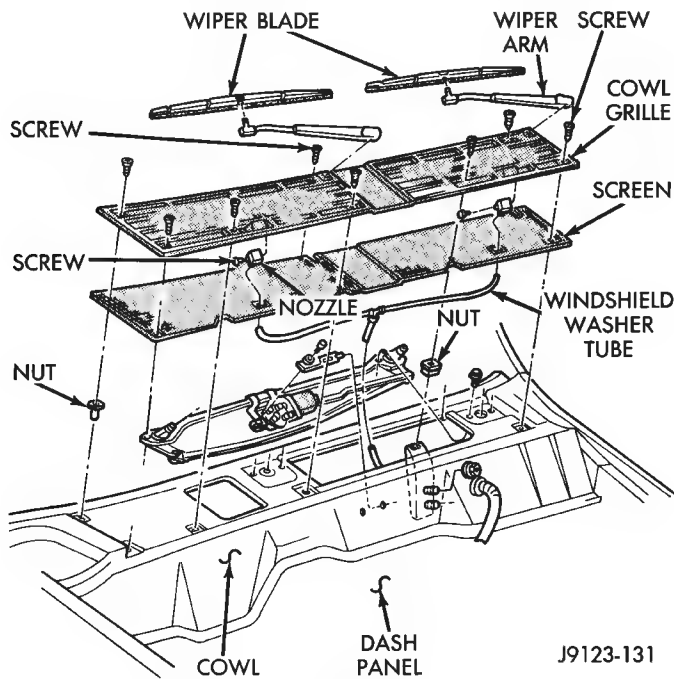
#### **REMOVAL**

- (1) Use a wax pencil to mark the position of the wiper arms (Fig. 25).



**Fig. 25 Wiper Locations On Windshield**

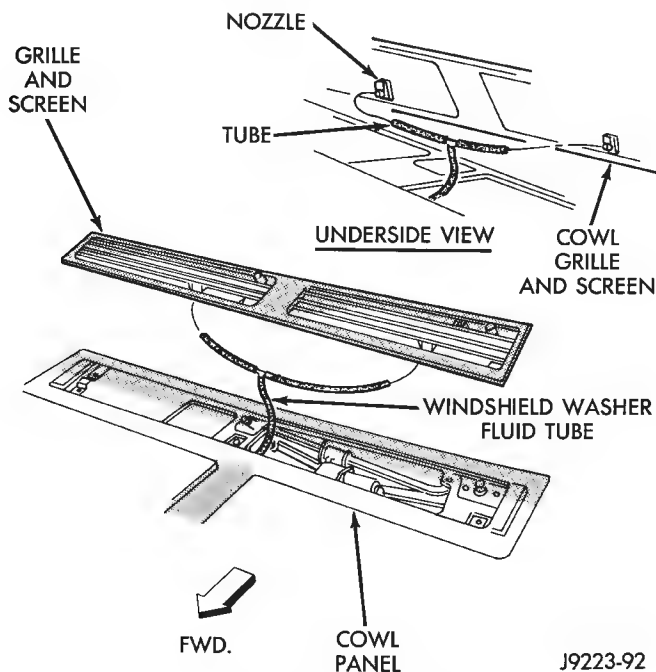
(2) Remove the windshield wiper arms from the pivots (Fig. 26).



**Fig. 26 Cowl Grille Components**

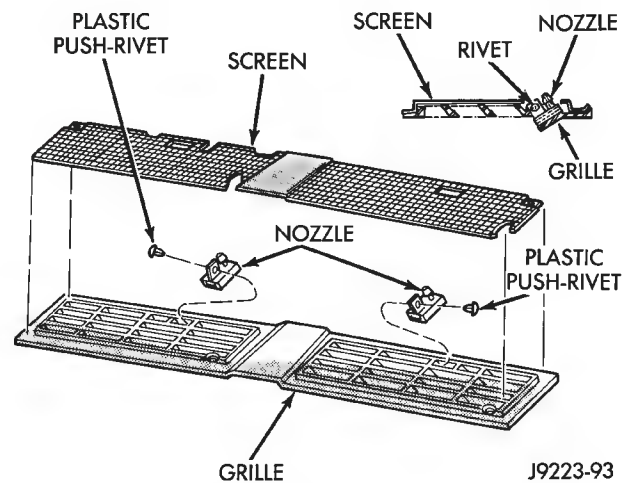
(3) Remove the screws that attach the grille to the cowl.

(3) Remove the windshield washer tubes from the nozzles (Fig. 27).



**Fig. 27 Washer Fluid Tubes**

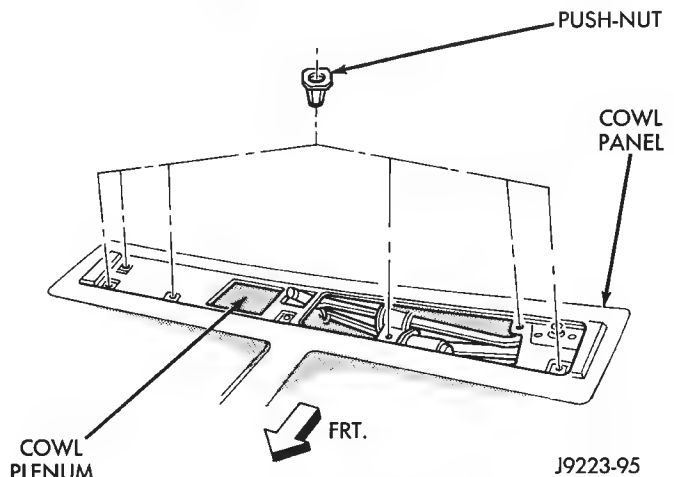
(4) Remove the cowl grille and screen from the cowl (Fig. 28).



**Fig. 28 Cowl Grille, Screen & Washer Nozzles**

(5) If necessary, remove the push-rivets and washer nozzles from the cowl grille (Fig. 28).

(6) If necessary, remove the cowl grille push-nuts from the cowl panel (Fig. 29).



**Fig. 29 Cowl Grille Push-Nuts**

(7) If necessary, remove the nuts and cowl grille support bracket from the dash panel (Fig. 30).

### INSTALLATION

(1) If removed, install the cowl grille support bracket on the dash panel (Fig. 30). Tighten the nuts to 9 N·m (77 in-lbs) torque.

(2) If removed, install the push-nuts in the cowl panel and the support bracket.

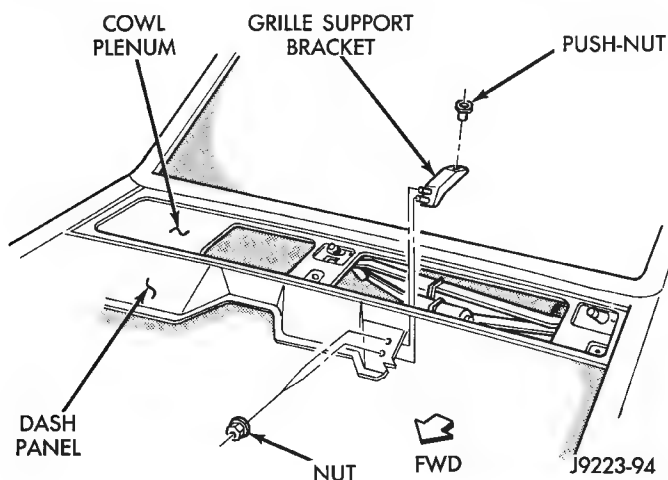
(3) If removed, install the push-rivets and washer nozzles in the cowl grille.

**CAUTION:** The washer fluid tubes must be routed and installed so that they are not pinched.

(4) Position the cowl grille and screen on the cowl. Install the windshield washer tubes on the nozzles.

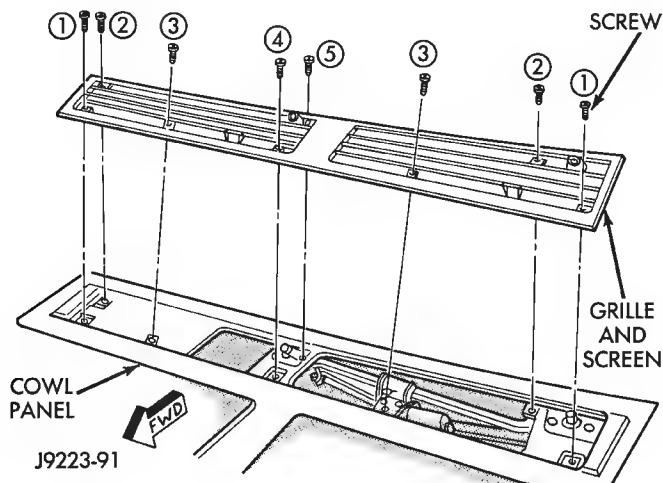
(5) Install the cowl screen and grille screws. Tighten in sequence (Fig. 31).





**Fig. 30 Cowl Grille Support Bracket**

Force the cowl grille rearward while tightening the screws.



**Fig. 31 Cowl Grille Screw Tightening Sequence**

(6) Install the windshield wiper arms on the pivots.

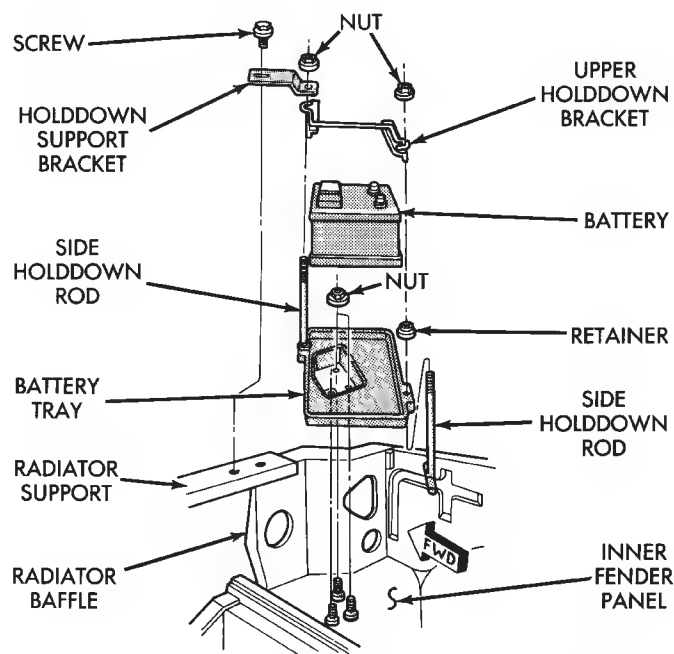
## BATTERY TRAY—XJ

### REMOVAL

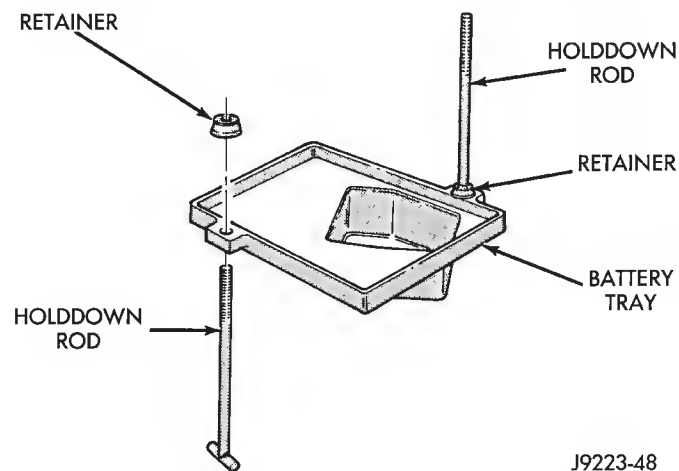
- (1) Remove the screw, nuts, holddown support bracket and upper holddown bracket from the holddown rods (Fig. 32).
- (2) Remove the battery from tray.
- (3) Remove the nuts that attach battery tray to the inner fender panel.
- (4) Remove the battery tray from the vehicle.
- (5) If necessary, remove the retainers and holddown rods from the battery tray (Fig. 33).

### INSTALLATION

- (1) If removed, install side the holddown rods and retainers on the battery tray.



**Fig. 32 Battery Tray Removal/Installation**



**Fig. 33 Battery Holddown Rods & Retainers**

- (2) Position the battery tray on the inner fender panel with the studs inserted in the holes.
- (3) Attach the battery tray to the inner fender panel with the nuts. Tighten the nuts to 30 N·m (22 ft-lbs) torque.
- (4) Install the battery in tray.
- (5) Position the upper holddown bracket over the holddown rods.
- (6) Install the holddown support bracket, screw, and nuts on the holddown rods. Tighten the screw and nuts.

## FRONT FENDER—XJ

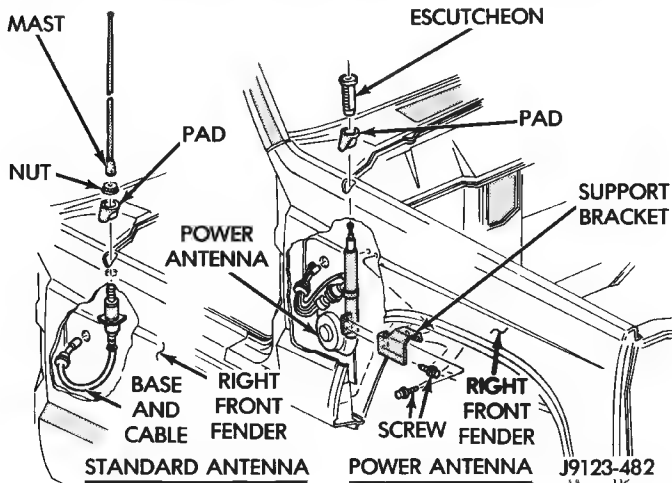
The following information includes procedures for removal/installation of:

- Fender liner.
- Front fender flare and retainers.

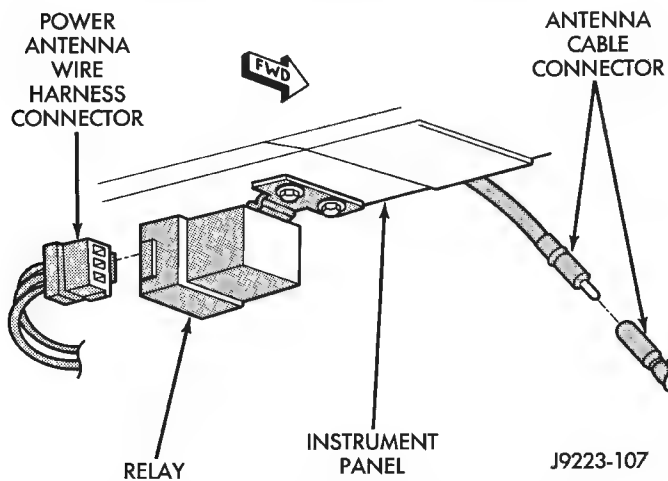
- Front fender.

### REMOVAL

- (1) Remove the front bumper.
  - (2) Right fender only:
- If equipped, remove the radio antenna mast, and components from the fender (Fig. 34 and 35).

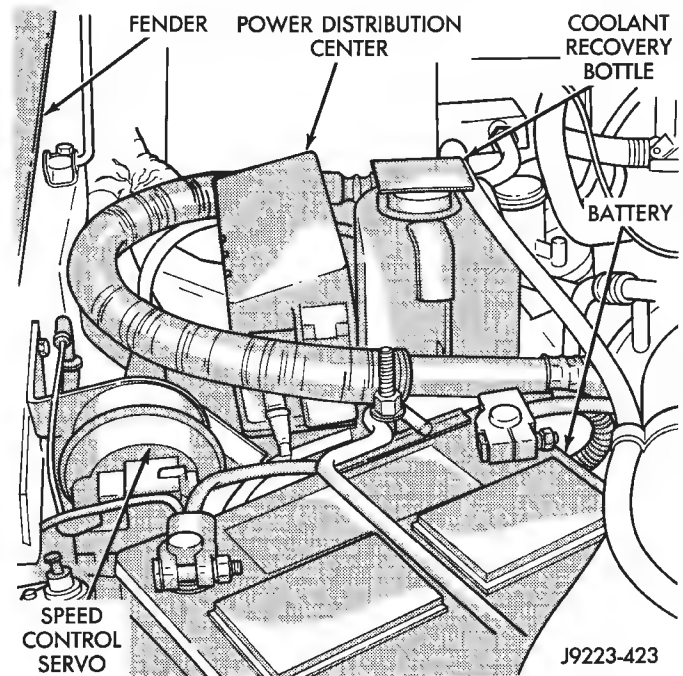


**Fig. 34 Radio Antenna Removal/Installation**

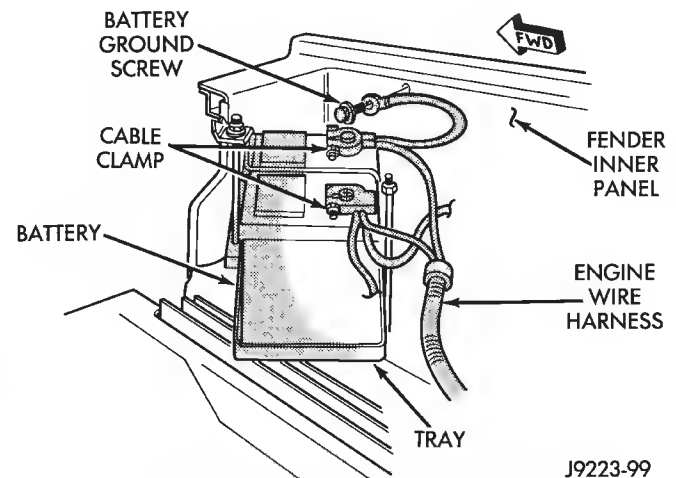


**Fig. 35 Power Antenna Wire Harness & Cable Connectors**

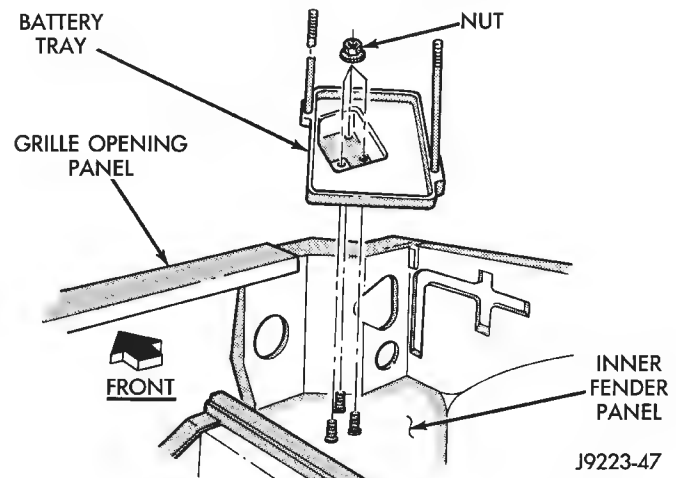
- Remove the battery and tray from the fender inner panel (Fig. 36, 37 and 38).



**Fig. 36 Battery, Speed Servo, PDC & Coolant Recovery Bottle**

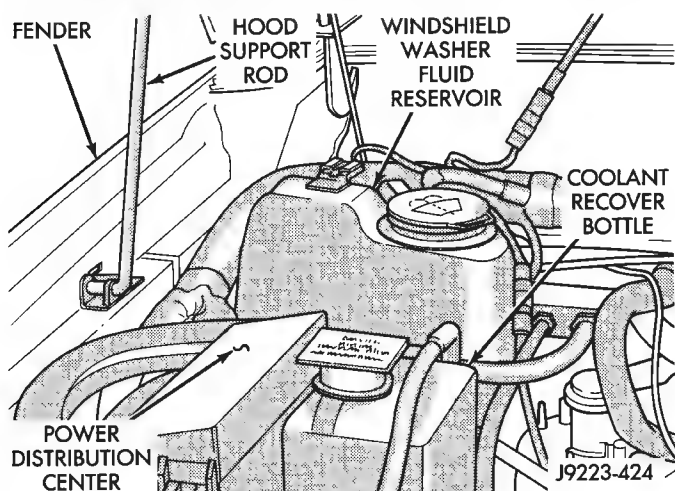


**Fig. 37 Battery Removal/Installation**



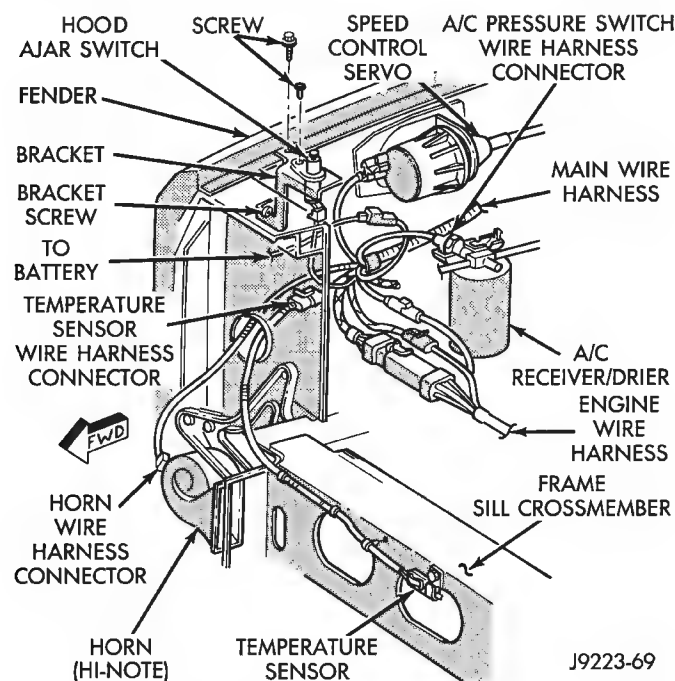
**Fig. 38 Battery Tray Removal/Installation**

- Remove windshield washer reservoir from fender inner panel (Fig. 39).



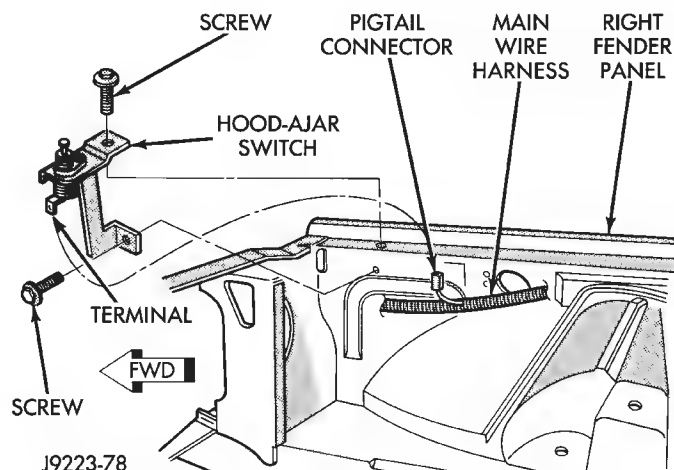
**Fig. 39 Coolant Recovery Bottle, Windshield Washer Fluid Reservoir & Hood Support Rod**

- Remove the hood ajar switch, if equipped, from fender (Fig. 40 and 41).

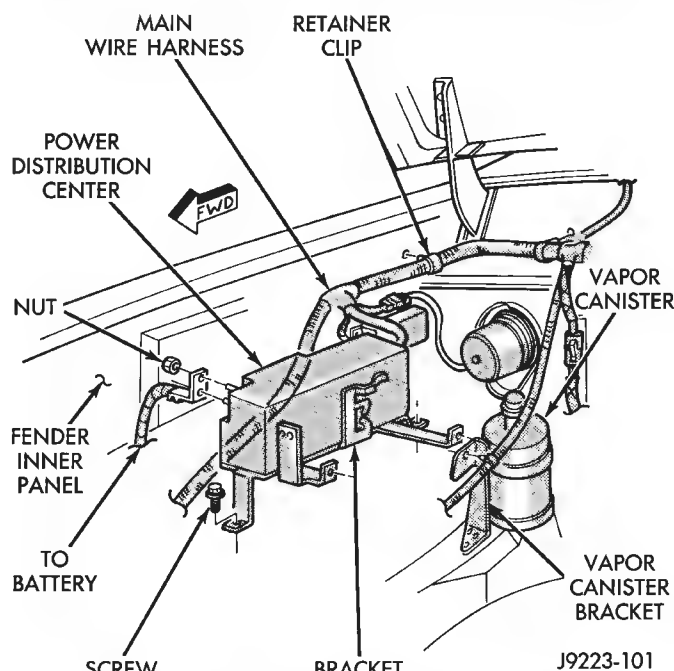


**Fig. 40 Hood Ajar Switch, Speed Servo & A/C Receiver/Drier**

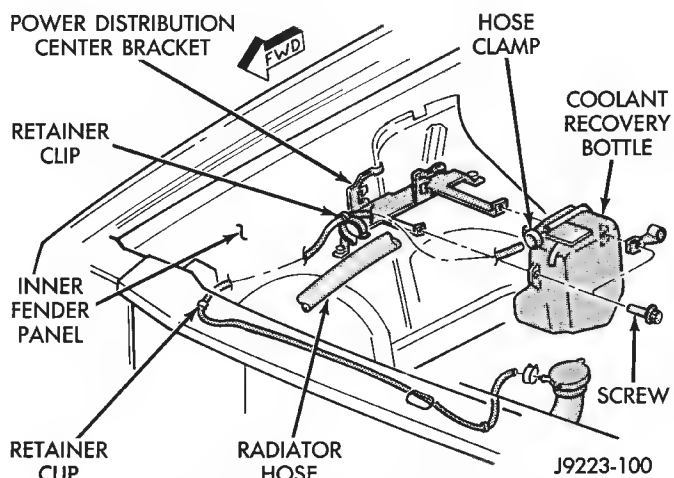
- Remove the Power Distribution Center (PDC), the coolant recovery bottle and speed servo from fender inner panel (Fig. 42, 43 and 44).



**Fig. 41 Hood Ajar Switch Removal/Installation**

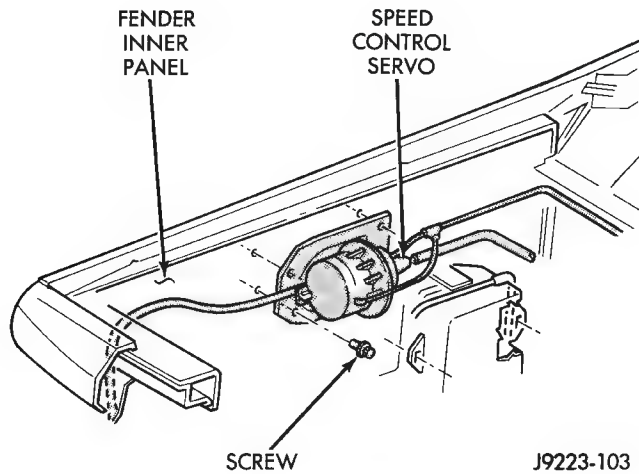


**Fig. 42 Power Distribution Center and Vapor Canister**



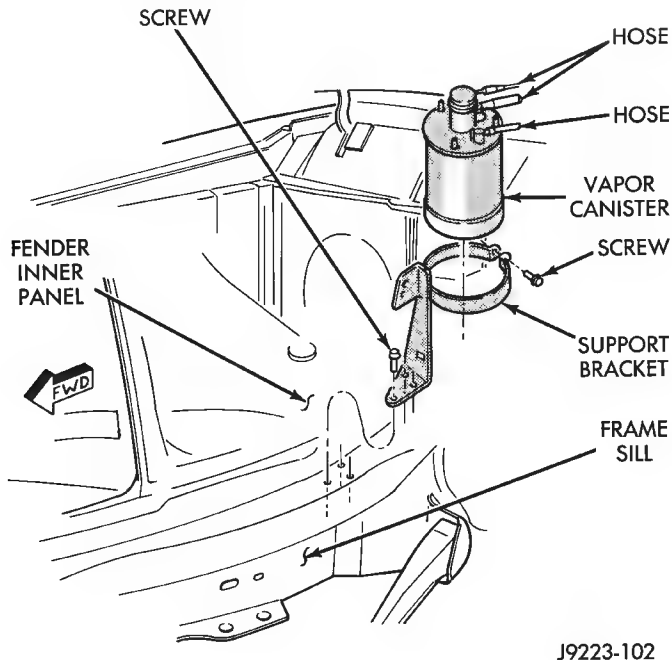
**Fig. 43 Coolant Recovery Bottle**





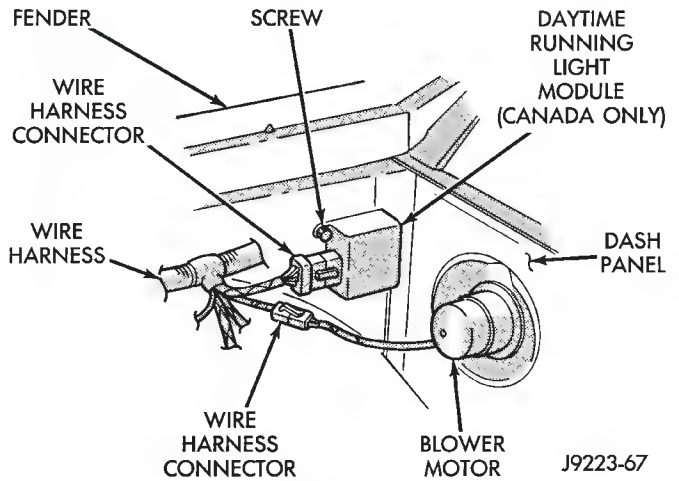
**Fig. 44 Speed Servo**

- Remove the vapor canister from the fender inner panel (Fig. 42 and 45).

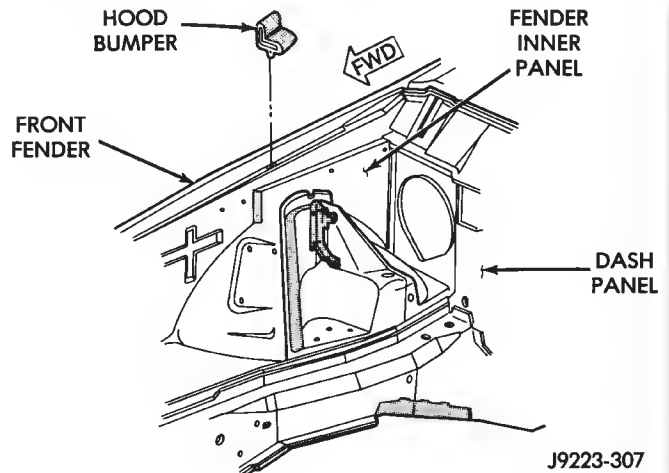


**Fig. 45 Vapor Canister**

- Remove the A/C Receiver/Drier from the fender inner panel (Fig. 40).
- If equipped, remove the Daytime Running Light (DRL) module from the fender inner panel (Fig. 46).
- Support the hood and remove the hood support rod from the fender inner panel.
- (3) Remove the hood bumper from the fender inner panel (Fig. 47).
- (4) Raise and support the vehicle.
- (5) Remove the front wheel.
- (6) Remove the fender liner, fender flare and retainers (Fig. 48):
- Remove the screws that attach the lower part of flare to the fender outer panel.

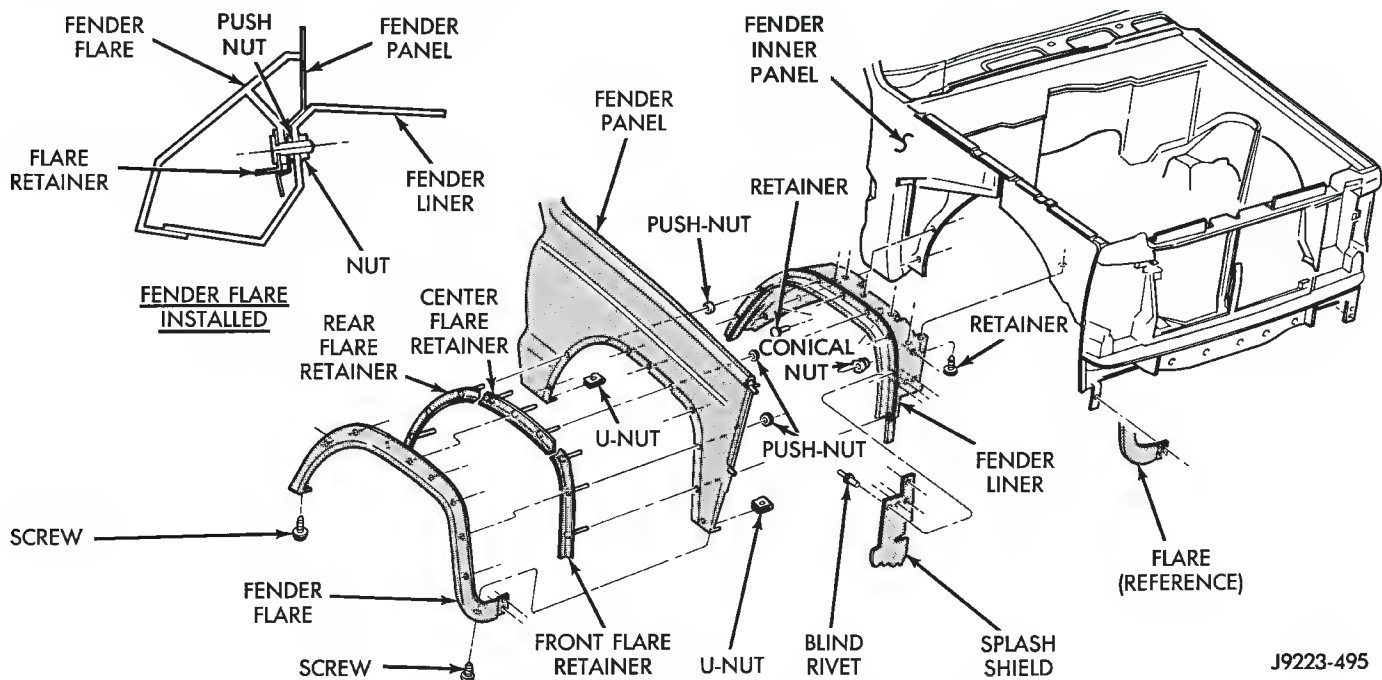


**Fig. 46 Daytime Running Light (DRL) Module**

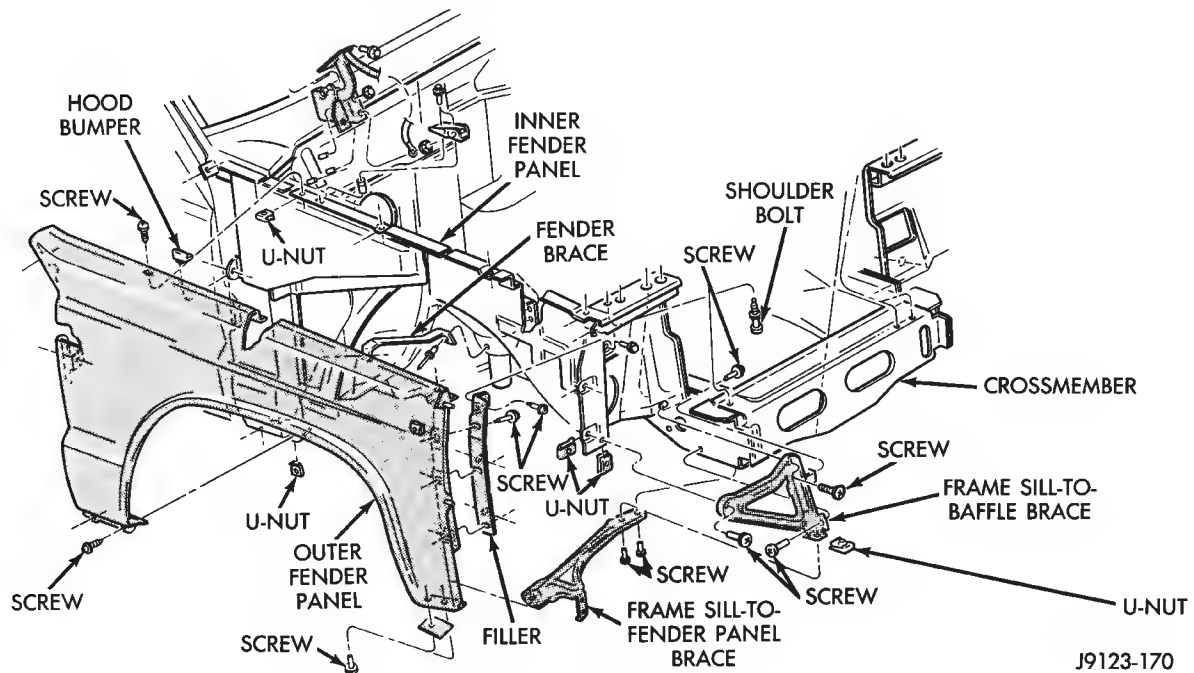


**Fig. 47 Hood Bumper**

- Remove the rivets that attach the flare to the air deflector.
- Remove the retainers that attach the fender liner to the fender inner panel.
- Remove the nuts that attach the fender liner to the fender outer panel and flare retainers.
- Remove the fender liner from between the fender panels.
- Remove the push-nuts that attach the retainers to the fender outer panel.
- Remove the retainers and flare from the fender outer panel.
- (7) Remove the grille opening panel (GOP).
- (8) Remove the air deflector.
- (9) Remove the rocker panel molding from the fender.
- (10) Remove all the fender braces (Fig. 49).
- (11) Remove the fender lower screws (Fig. 49).
- (12) Remove the fender top, front and the rear screws. Remove the fender from the inner fender panel (Fig. 49).



**Fig. 48 Fender Flare & Liner Removal/Installation**

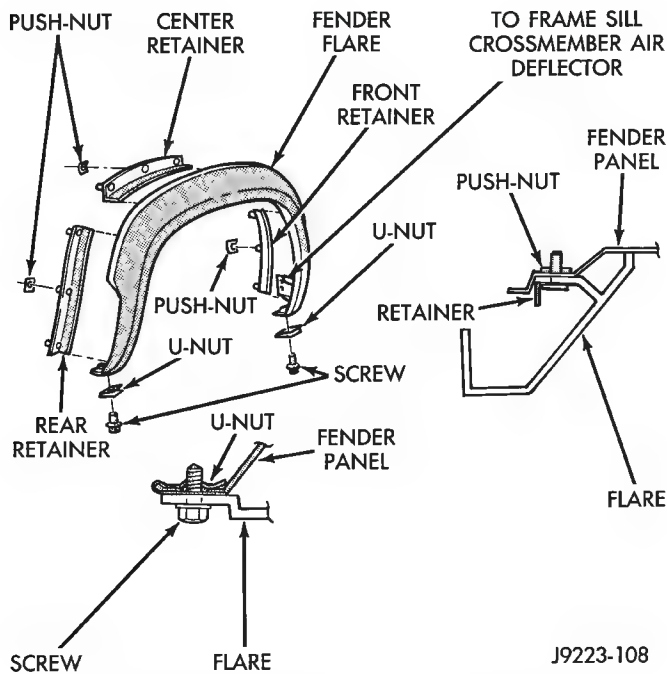


**Fig. 49 Fender Removal/Installation**

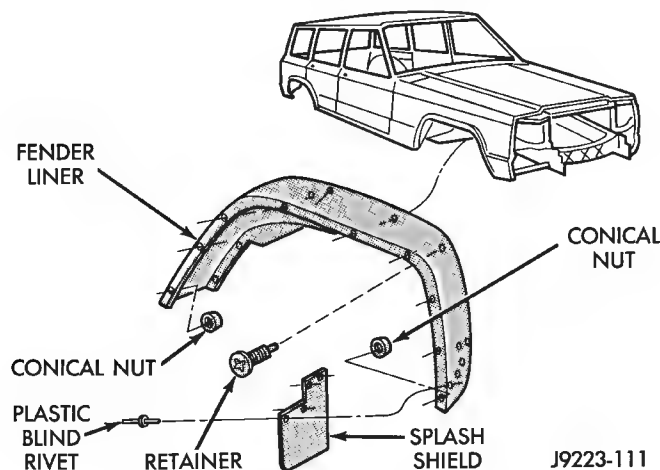
## INSTALLATION

- (1) Position the fender on the inner fender panel.
- (2) Install all of the fender screws finger-tight.
- (3) Install the fender braces.
- (4) Align the fender with the body panels and tighten the fender screws to 8.5 N·m (76 in-lbs) torque.
- (5) Install the grille opening panel (GOP).
- (6) Install the air deflector.

- (7) Install the fender flare and retainers (Fig. 50). Then install the fender liner.
  - Position the retainers and the flare on the fender.
  - Install the push-nuts to attach the retainers to the fender.
  - Position the fender liner between the fender and fender inner panel (Fig. 51).
  - Install the nuts to attach the fender liner to the fender and flare retainers (Fig. 48).



**Fig. 50 Fender Flare & Retainers**



**Fig. 51 Fender Liner and Retainers**

- Install the retainers to attach the fender liner to the fender inner panel.
- Install the rivets to attach the flare to the air deflector (Figs. 48 and 50). and
- Install the screws to attach the flare to the fender. Tighten the screws to 1 N·m (13 in-lbs) torque.

(8) Connect the front lamp wire harness connectors to the engine wire harness connectors (Fig. 52).

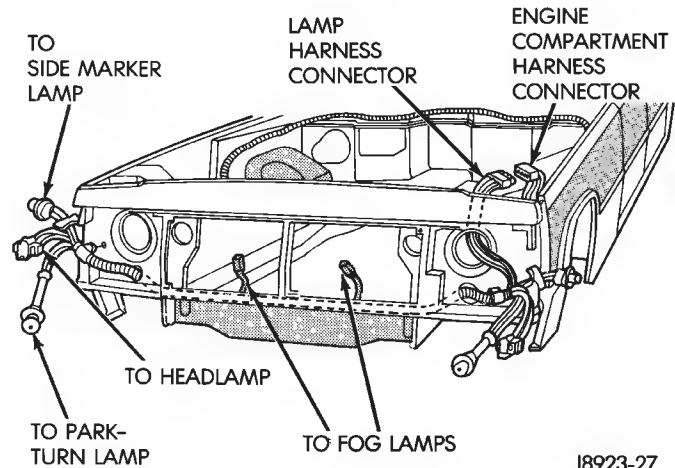
(9) Install the front lamps.

(10) Install the front bumper.

(11) Install the wheel, remove the support and lower the vehicle.

(12) Right fender only: install the hood support rod on the fender inner panel.

(13) Install the hood bumper on the fender inner panel.



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**Fig. 52 Front Lamp Wire Harness Connectors**

(14) Right fender only: install the Daytime Running Light (DRL) module on fender inner panel.

(15) Right fender only: install the A/C Receiver/Drier on the fender inner panel.

(16) Right fender only: install the vapor canister on the fender inner panel. Tighten the vapor canister screws to 5 N·m (45 in-lbs) torque.

(17) Right fender only: install the PDC, coolant recovery bottle and speed servo on the fender inner panel.

(18) Right fender only: install the hood ajar switch, if equipped. Tighten the screws to 2 N·m (15 in-lbs) torque.

(19) Right fender only: install the windshield washer fluid reservoir on the inner panel.

(20) Right fender only: install the battery tray and battery on the inner panel.

(21) Right fender only: if equipped, install the radio antenna. Tighten the nut/escutcheon to 4.5 N·m (40 in-lbs) torque. Tighten the power antenna bracket screws to 2 N·m (20 in-lbs) torque.

## REAR WHEELHOUSE FLARES AND LINERS—XJ

### REMOVAL

(1) Remove the flare and liner lower screws (Fig. 53 and 54).

(2) Remove the nuts that attach the liner to the wheelhouse.

(3) Remove the liner from the wheelhouse.

(4) Remove the push-nuts that attach the flare retainers to the wheelhouse (Fig. 55).

(5) Remove the flare and retainers from the wheelhouse.

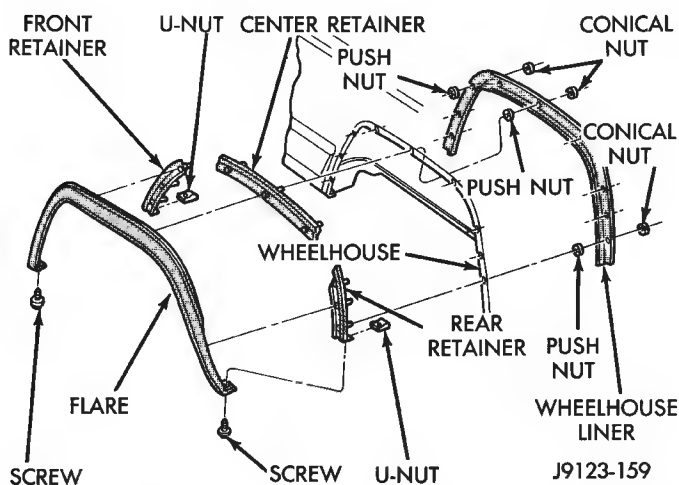
### INSTALLATION

(1) Position the flare and retainers at the wheelhouse.

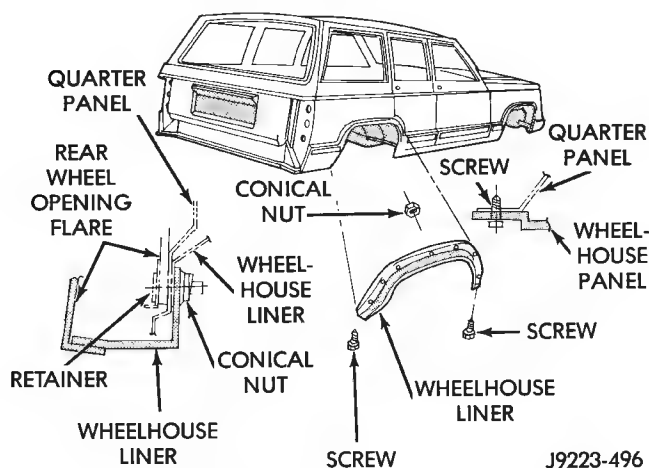
(2) Install the push-nuts to attach the flare retainers to the wheelhouse.

(3) Position the liner in the wheelhouse.

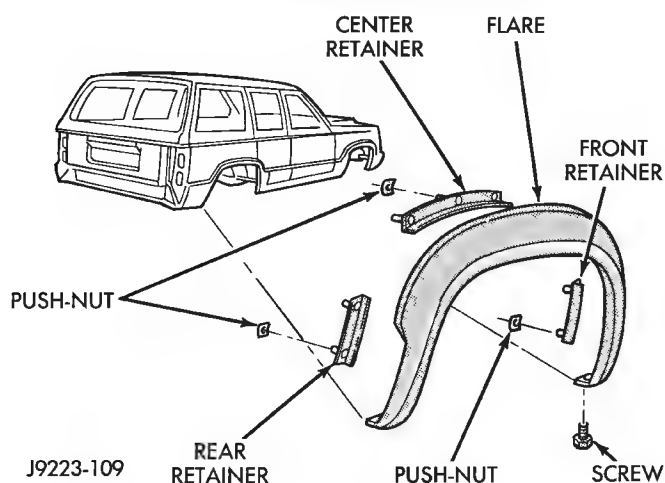




**Fig. 53 Rear Wheelhouse Flare, Retainers and Liner**



**Fig. 54 Rear Wheelhouse Liner**



**Fig. 55 Rear Wheel Opening Flare**

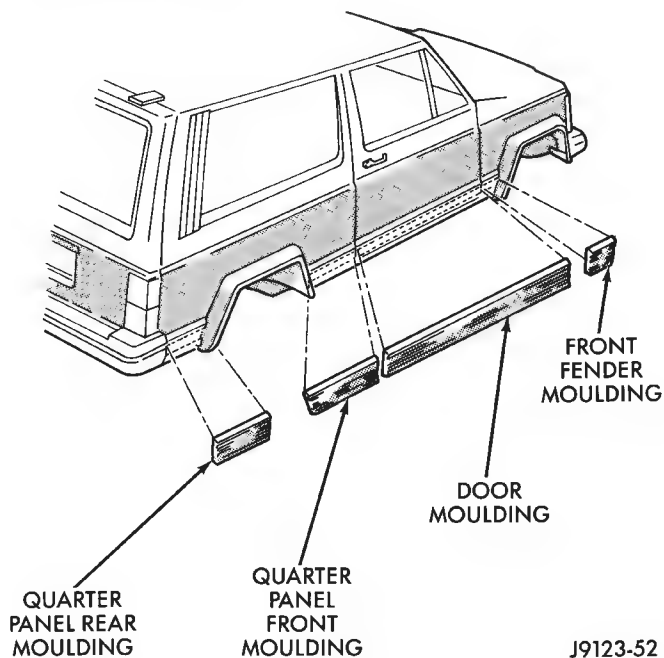
(4) Install the nuts to attach the liner to the wheelhouse and flare retainers.

(5) Install the flare and liner lower screws. Tighten the screws to 1 N·m (13 in-lbs) torque.

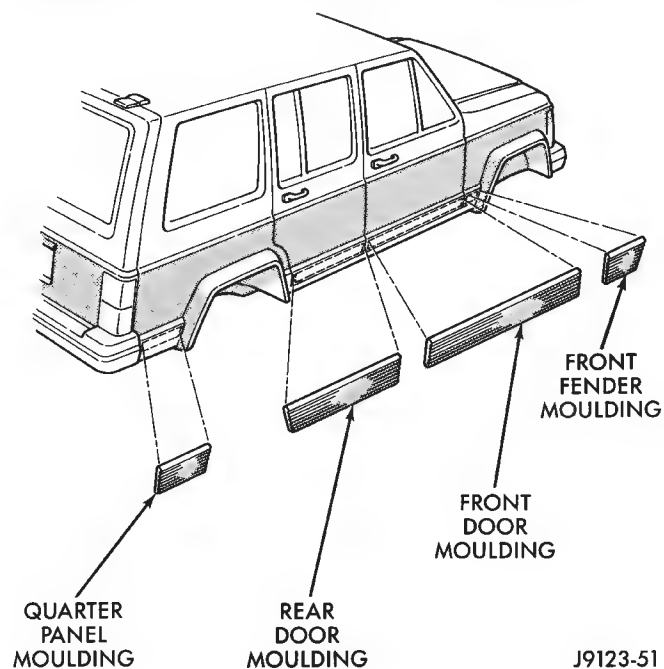
## BODY SIDE MOLDING/CLADDING—XJ

### REMOVAL

(1) Loosen the vinyl body side molding (Fig. 56 and 57) with a heat gun.



**Fig. 56 Body Side Molding—2-Door XJ Vehicles**



**Fig. 57 Body Side Molding/Cladding—4-Door XJ Vehicles**

(2) Lift edge of molding with a putty knife and peel molding from body panel. Apply heat to any location where the molding remains adhered to a panel.

(3) Remove the adhesive from the body panel with 3M All Purpose Cleaner, or an equivalent cleaner.

(4) If the original molding will be installed, also remove all adhesive from it.

### INSTALLATION

(1) Install 3M 06379 double-sided tape on the molding.

(2) For vertical alignment, use masking tape or a string as reference.

(3) Remove the backing from the tape, align the molding and position it on the body panel.

(4) Press the molding onto the body panel with a roller or hand pressure.

### BODY STRIPES/DECALS—XJ

### SERVICE INFORMATION

XJ body stripes and decals are weather resistant tape with a adhesive backing.

### REPAIR

Small nicks, scratches and other surface marks in a body stripe/decals can be touched-up with paint.

To eliminate blisters and air bubbles in a body stripe/decals, pierce them with a needle or pin.

A heat gun can also be used to remove small wrinkles in a stripe/decals.

### REQUIREMENTS

Body stripe/decals replacement requires that the metal repair and paint refinish be completed first.

The work area temperature should be between 18°C (65°F) and 32°C (90°F). **A tape stripe/decals should not be replaced if the work area temperature is less than 18°C (65°F).**

The following equipment and material are necessary for removal and installation:

- Commercial tape stripe/decals removal solution.
- Commercial adhesive removal solution.
- Liquid dish detergent (for the wetting solution).
- Mixture of wetting solution.
- Commercial wax and silicone removal solution.
- Isopropyl (rubbing) alcohol.
- Small squeegee (plastic or hard rubber).
- Water bucket and sponge.
- Clean wiping rags or paper towels.
- Heat gun (or infra-red heat bulb).
- Wax pencil.
- Sharp knife, single edge razor blade or X-acto knife.
- Pair of scissors.
- Needle or pin.

The use of a wetting solution aids the installation of a tape stripe/decals on a painted panel. Prepare the wetting solution by mixing two or three teaspoons of dish detergent with 1 gallon of water. **Do not use soap.**

**Too much detergent will reduce the effectiveness of the mixture.**

### REMOVAL

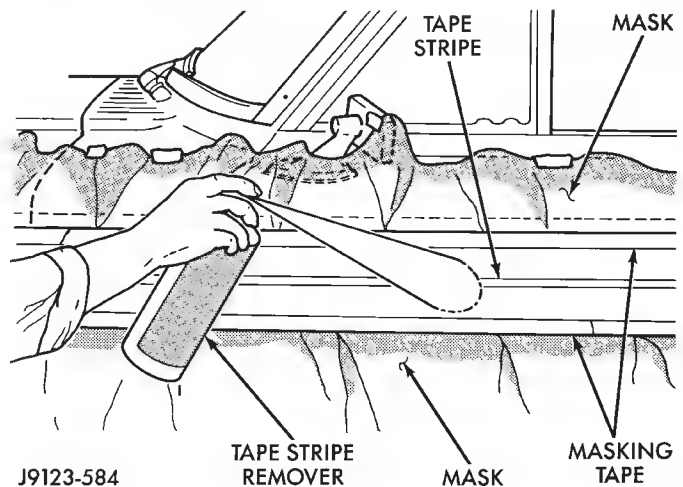
(1) Clean the repaired surface, adjacent panels and door the openings as necessary.

(2) Start at one end of the tape stripe/decals and apply heat with a heat gun. Slowly peel the stripe/decals from the panel by pulling it back. **Do not pull the tape stripe/decals outward from panel.**

**WARNING: USE TAPE STRIPE/DECAL REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.**

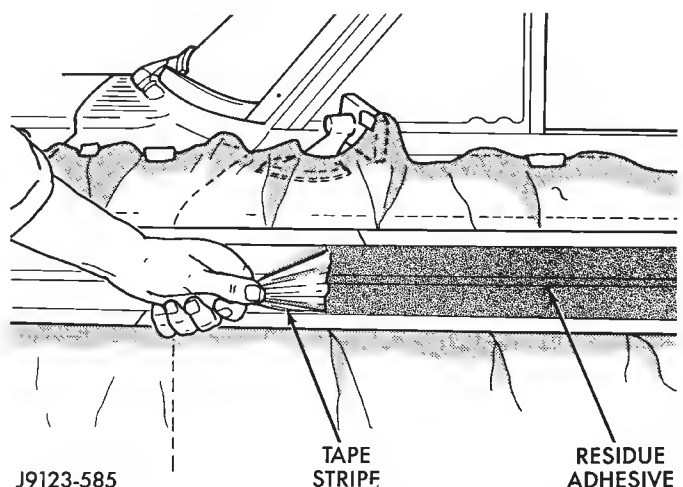
(3) A tape stripe/decals removal solution can be used for removal at areas where a heat gun is ineffective:

- Mask-off the body panel area surrounding the tape stripe/decals (Fig. 1).



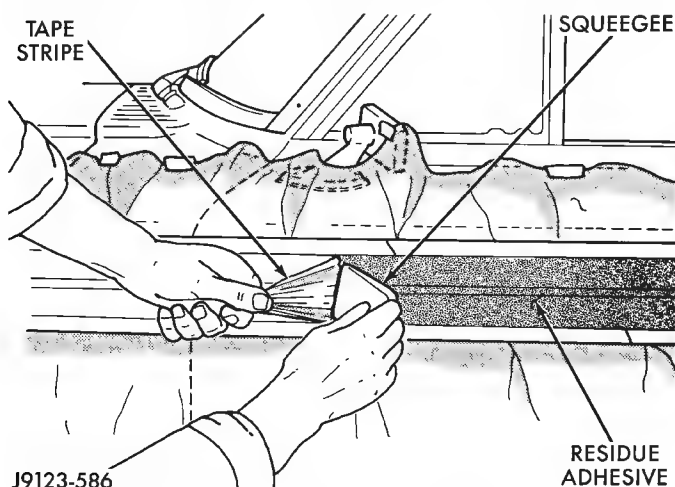
**Fig. 1 Stripe/Decal Removal Solution Application**

- Move solution spray across the complete length of stripe/decals with a steady motion.
- Ensure that the complete stripe/decals is covered with solution.
- Allow stripe/decals removal solution to remain on the stripe/decals for 20 minutes.
- After 20 minutes, peel the stripe/decals away from flange area (Fig. 2).



**Fig. 2 Body Stripe/Decal Removal**

- If there is difficulty with peeling the stripe/decals away from the body panel, use a squeegee (Fig. 3).



**Fig. 3 Body Stripe/Decal Removal With A Squeegee**

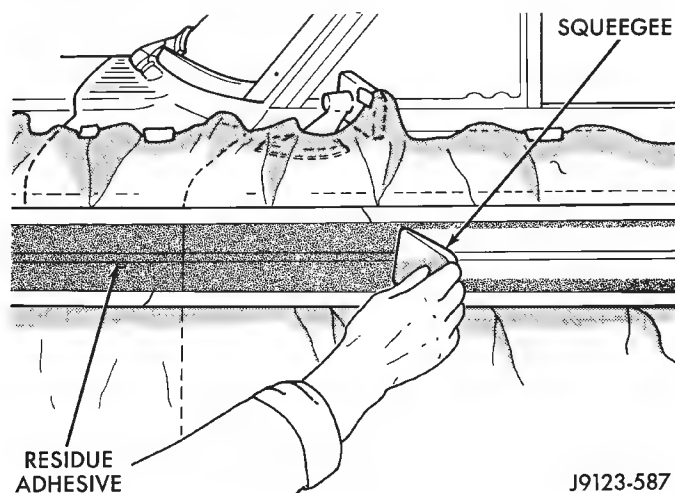
- With the stripe/decals removed, scrape all the stripe/decals solution from the panel surface before proceeding.

**WARNING: USE THE ADHESIVE REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.**

- (4) After the stripe/decals is removed, remove any adhesive remaining with a removal solution.

**Allow the adhesive removal solution to remain on the panel for 3 to 5 minutes only.**

- (5) After 3 to 5 minutes, use a squeegee to remove the adhesive (Fig. 4).



**Fig. 4 Adhesive Removal With A Squeegee**

- (6) Remove the masking tape and mask from the panel.

- (7) Wipe the panel with a cloth saturated with an adhesive cleaning solution.

## BODY PANEL SURFACE PREPARATION

- (1) The area that will be covered by the tape stripe/decals must be cleaned with cleaning solution.

- (2) Freshly painted surfaces must be thoroughly dry.

- (3) Clean the painted surface with a commercial wax and silicone removal solution. Wipe the surface with a clean cloth and allow it to dry.

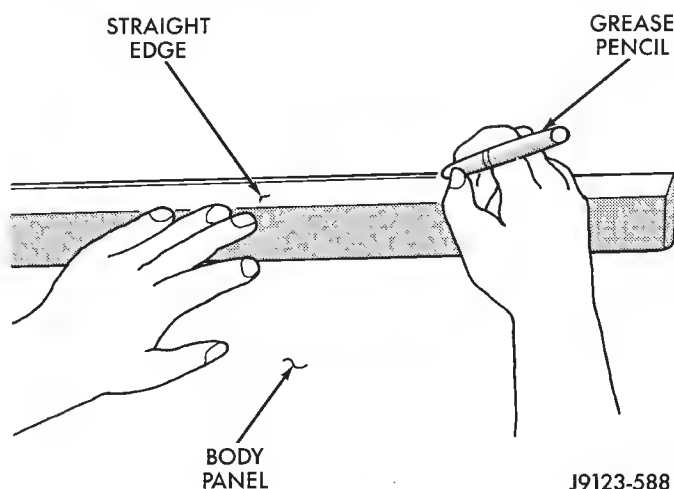
## REPLACEMENT ON ONE PANEL

For tape stripes/decals, use a clean sponge and apply the wetting solution:

- To the adhesive side of the tape stripe/decals.
- To the painted panel surface.

The wetting solution will permit ease of tape stripe/decals movement when positioning it.

- (1) Align a straight edge with the existing tape stripe/decals ends (Fig. 5).



**Fig. 5 Stripe/Decal Alignment Reference Mark**

**If applicable, the body panel character line can be used as the tape stripe/decals alignment reference.**

- (2) Position the tape stripe/decals and carrier on the body panel and mark length with a wax pencil.

- (3) Cut the stripe/decals and carrier at the required length with scissors.

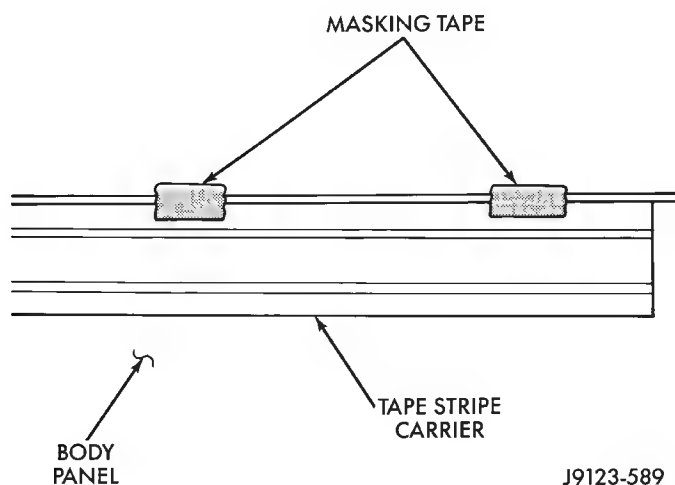
- (4) Position the stripe/decals and carrier on the body panel and hold it in-place with masking tape (Fig. 6).

- (5) Lift the bottom edge of tape stripe/decals and carrier. Use the tape sections as hinges, and reverse the position of stripe/decals and carrier (Fig. 7).

**CAUTION: Always remove the carrier from the tape stripe/decals, never remove the tape stripe/decals from carrier**

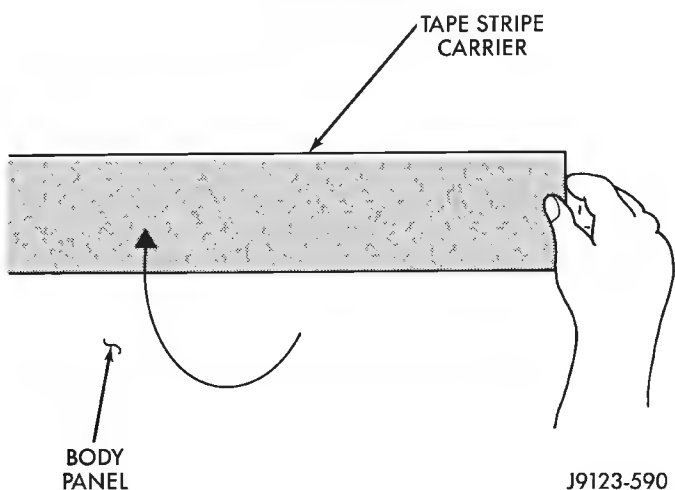
- (6) Bend a corner of carrier outward and then, with a flick of the finger, separate the corner of carrier from the decal.





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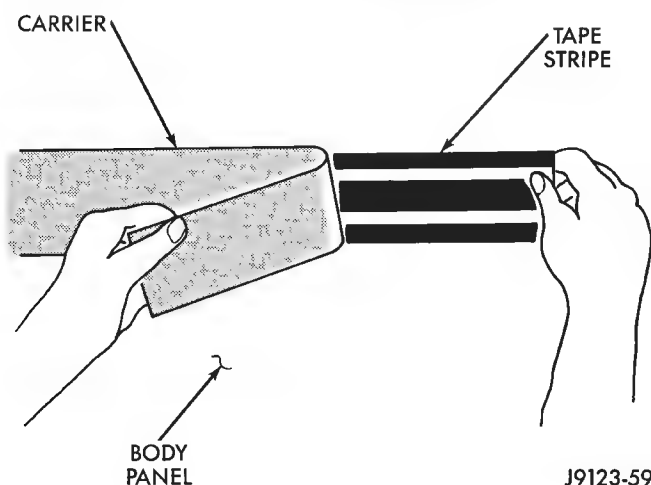
**Fig. 6 Tape Stripe/Decal And Carrier Retained On Body Panel**



J9123-590

**Fig. 7 Tape Stripe/Decal And Carrier Reversed On Body Panel**

(7) Separate approximately 15 cm (6 in) of the carrier from one end of the tape stripe/decal.

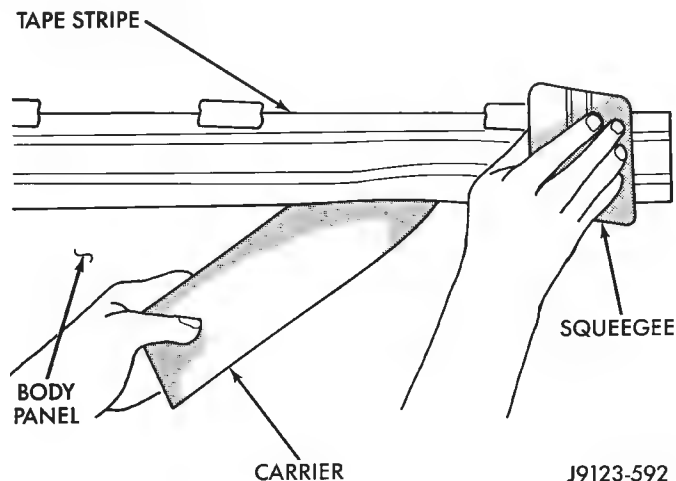


J9123-591

**Fig. 8 Tape Stripe/Decal and Carrier Separated**

(8) Return the tape stripe/decal back to its original position. If a solution is being used, position adhesive side of the tape stripe/decal on panel. Apply the solution to the outside of the tape stripe/decal.

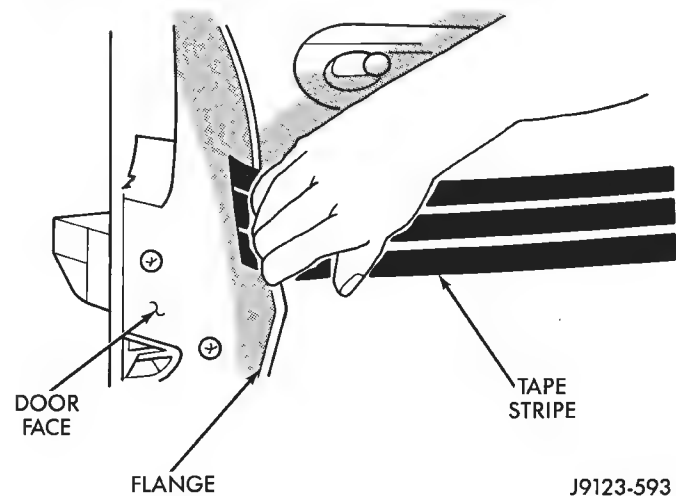
(9) Hold the tape stripe/decal against the panel surface while separating the carrier from the stripe/decal (Fig. 9).



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**Fig. 9 Tape Stripe/Decal Installation**

(10) Where applicable, extend the tape stripe/decal 12 mm (1/2 in) beyond door edge. Wrap it around the edge and press it to the door flange (Fig. 10).



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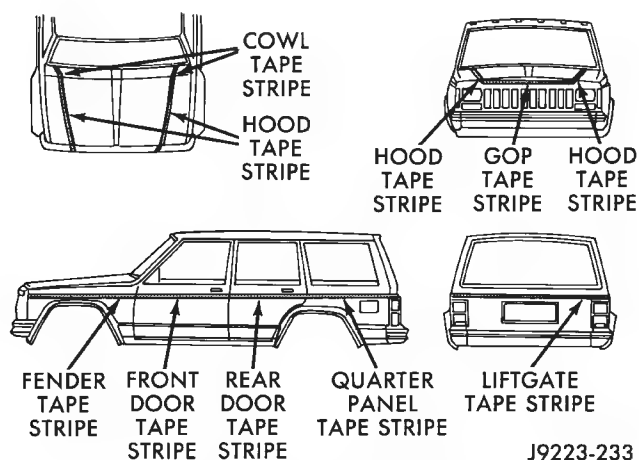
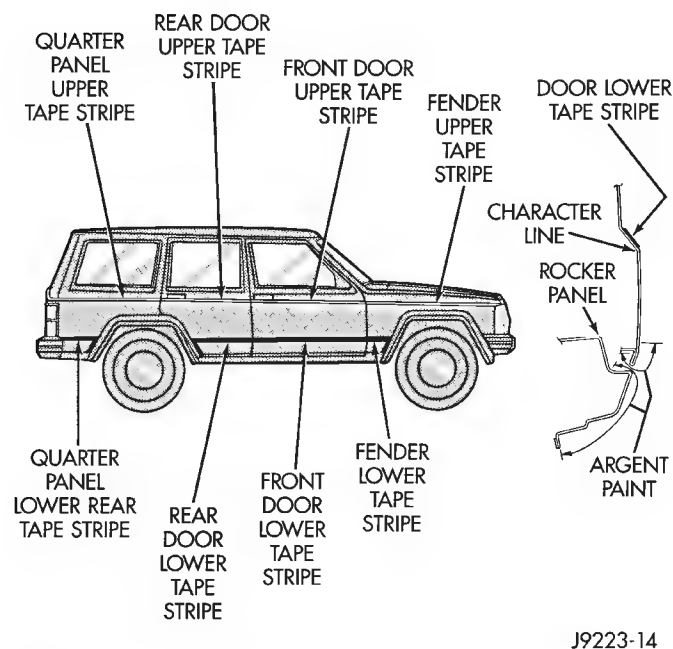
**Fig. 10 Tape Stripe/Decal Installation On Door Flange**

(11) If applicable, remove the cover from face of tape stripe/decal.

(12) Inspect the tape stripe/decal with reflected light to find any damage. Remove all the air and/or moisture bubbles.

**COMPLETE REPLACEMENT**

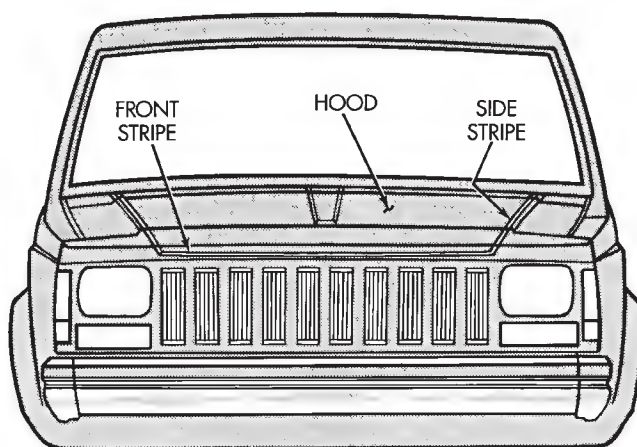
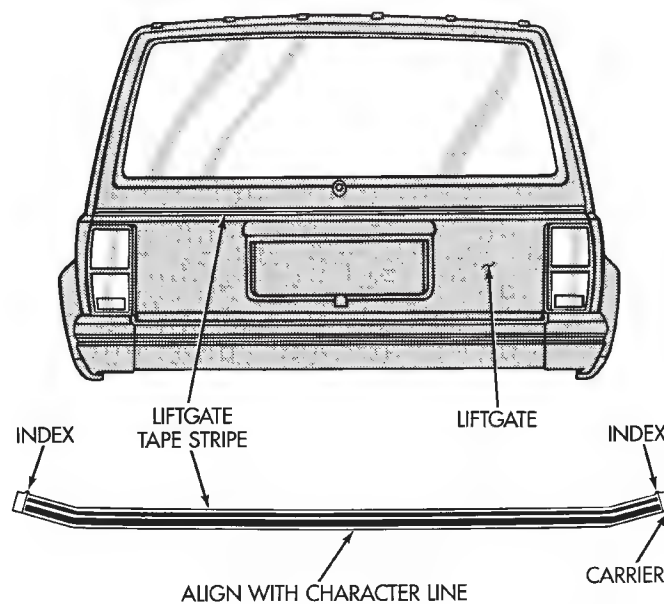
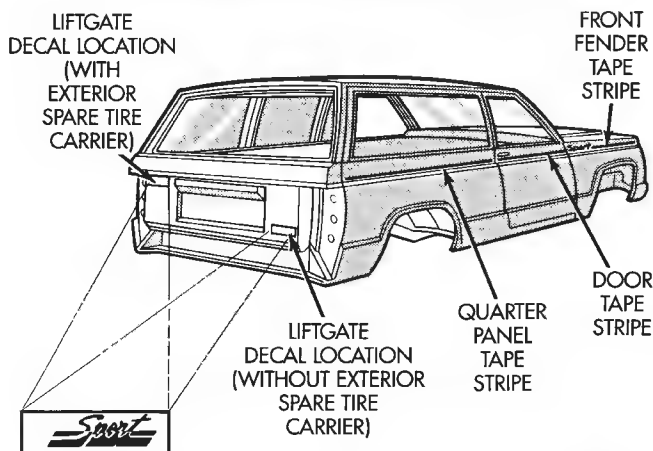
The following procedure will simplify the installation of a complete or very large section (Fig. 11, 12, 13, 14 and 15).

**Fig. 11 Tape Stripes—XJ****Fig. 12 Upper and Lower Body Side Tape Stripes—XJ Vehicles**

(1) Place the tape stripe/decals on a clean, flat surface with the carrier side facing upward.

**CAUTION:** Always remove the carrier from tape stripe/decals, never remove the tape stripe/decals from the carrier.

(2) Bend a corner of the carrier inward and then, with a flick of the finger, separate the corner of carrier from the tape stripe/decals.

**Fig. 13 Hood Tape Stripes—XJ Vehicles****Fig. 14 Tailgate Tape Stripes—XJ Vehicles****Fig. 15 Tape Stripes and Decal—XJ Sport**

(3) Retain the tape stripe/decals firmly against flat surface and separate the carrier from tape stripe/decals.

(4) Use a sponge and apply solution to the tape stripe/decals adhesive and to panel surface.

(5) Position the adhesive side of tape stripe/decals on the panel with the bottom aligned with the character line.

- Align the end of the replacement tape stripe/decals with the end of existing tape stripe/decals.

- Correctly align the index darts and index notches.

(6) If a complete replacement tape stripe/decals is not being installed:

- Position the replacement tape stripe/decals section at the center of the repair area.

- Align it with the existing tape stripe/decals.

- Allow at least 12 mm (1/2 in) of the tape stripe/decals section to overlap the tape stripe/decals edges.

(7) Apply the wetting solution to the outer side of the tape stripe/decals.

**CAUTION:** Avoid unnecessary pulling and stretching at the ends.

(8) Slide a squeegee from the center to the ends of the tape stripe/decals. Use firm strokes to remove all of the air bubbles.

(9) If a wrinkle is trapped in the tape stripe/decals stop immediately. Lift the wrinkled area and re-align it with the character line to remove the wrinkle. **Do not lift the tape stripe/decals if only a few air bubbles exist.**

(10) Where applicable, allow 12 mm (1/2 in) extra tape stripe/decals to extend beyond edges.

(11) Fold the excess tape onto the inside flange and adhere it with finger pressure.

(12) Inspect the tape stripe/decals installation with the reflected light to find any damage.

(13) Remove all the air and moisture bubbles from the tape stripe/decals with a needle or pin.

(14) Install any removed components and clean the vehicle as necessary.

## QUARTER WINDOW APPLIQUE—XJ

### REMOVAL/INSTALLATION

(1) Remove nuts from inside vehicle (Fig. 16).

(2) Carefully pry the applique from panel.

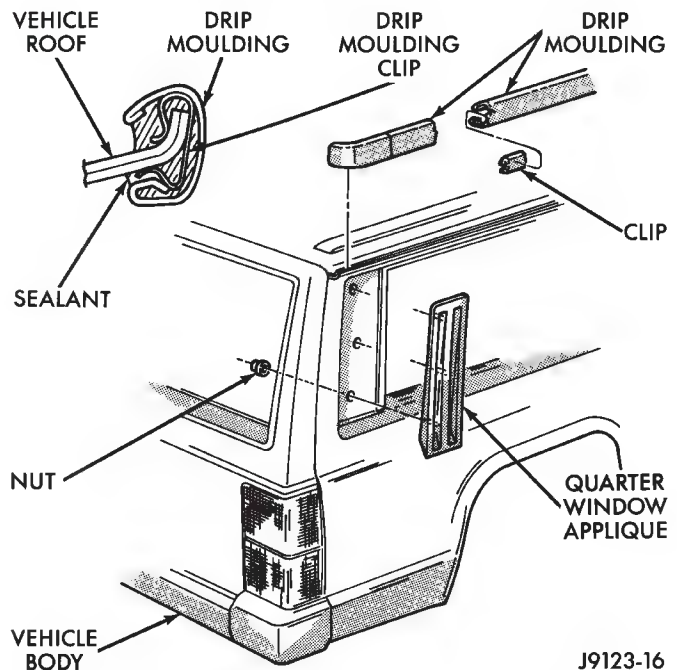
(3) Position the replacement applique on panel and install the nuts.

## DRIP RAIL MOLDING—XJ

### REMOVAL

(1) Pry the clips from the roof flange.

(2) Remove the clips and molding from the roof flange.



J9123-16

**Fig. 16 Quarter Window Applique and Drip Molding**

(3) Remove the remaining sealant and clean the roof flange.

### INSTALLATION

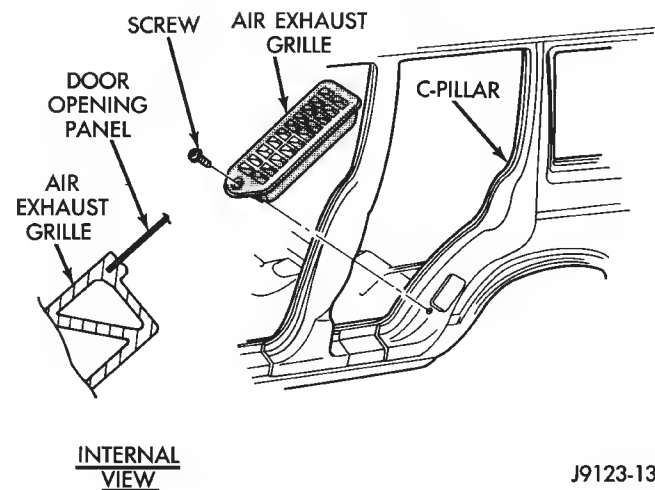
(1) Position the drip rail molding with clips at the roof flange and force the clips onto the roof flange.

(2) Apply sealant to the inner side of the molding to seal the roof flange.

## AIR EXHAUST GRILLE—XJ

### REMOVAL

(1) Remove the screw that attaches the grille to the door opening panel (Fig. 17).



J9123-138

**Fig. 17 Door Opening Air Exhaust Grille**

(2) Pry the bottom edge of the grille from the door opening panel.



(3) Pull downward and remove the grille from exhaust port in the door opening panel.

### INSTALLATION

(1) Position the slot located in the upper end of replacement grille at the exhaust port and insert edge in the slot.

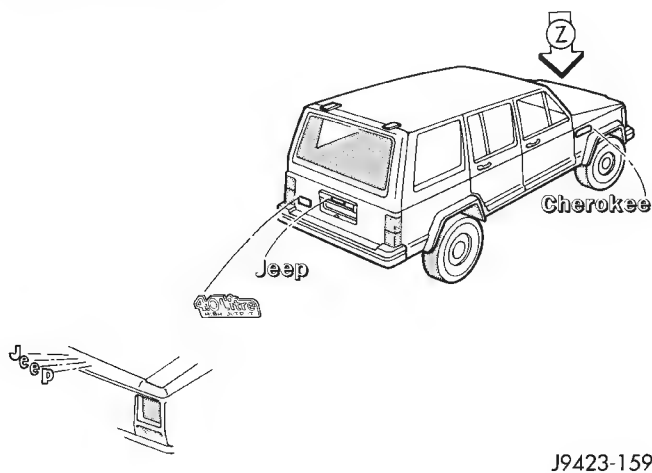
(2) Push inward and seat the grille in the exhaust port.

(3) Install the screw to attach the grille to the door opening panel.

### EXTERIOR NAMEPLATES—XJ

#### SERVICE INFORMATION

All of nameplates, with the exception of the JEEP nameplate located on the grille are attached with adhesive (Fig. 18).



**Fig. 18 XJ Exterior Nameplates**

### GRILLE OPENING PANEL NAMEPLATE

#### REMOVAL

(1) Remove the grille opening panel (GOP) support bracket.

(2) As applicable, remove the nut(s) from the letter(s) that must be replaced.

(3) Remove the nameplate letter(s) from GOP.

#### INSTALLATION

(1) Clean the panel surface.

(2) Position the replacement letter(s) on the GOP.

(3) Install the nut(s) and tighten.

### ADHESIVE-BACKED NAMEPLATES

#### REMOVAL/INSTALLATION

(1) Pry the nameplate from vehicle panel.

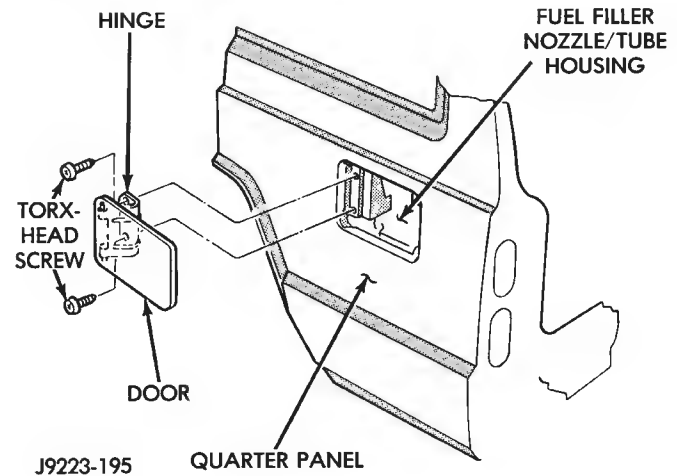
(2) Clean the panel surface.

(3) Position the replacement nameplate on the panel push inward to seat it.

### FUEL FILLER NOZZLE/TUBE—XJ

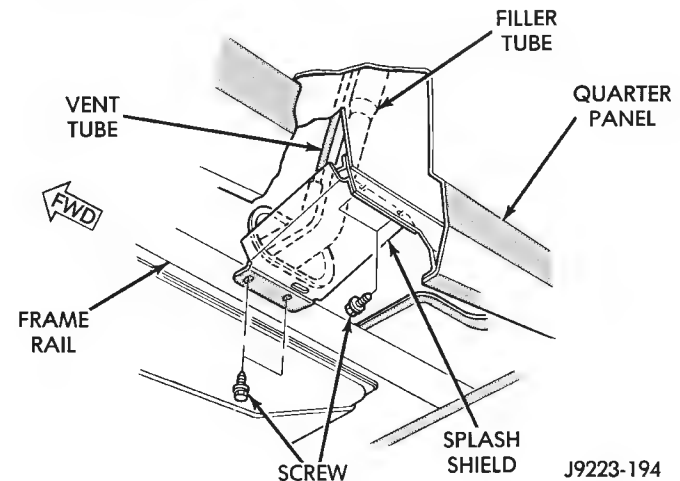
#### REMOVAL

(1) Remove the fuel filler door from the quarter panel (Fig. 19).



**Fig. 19 Fuel Filler Door—Typical**

(2) For XJ vehicles, remove the fuel filler hose splash shield from the quarter inner panel and frame rail (Fig. 20).



**Fig. 20 Fuel Filler Hose Splash Shield—XJ Vehicles**

(3) Remove the cap from the nozzle (Fig. 21).

(3) Loosen the clamps and separate the hoses from the tubes.

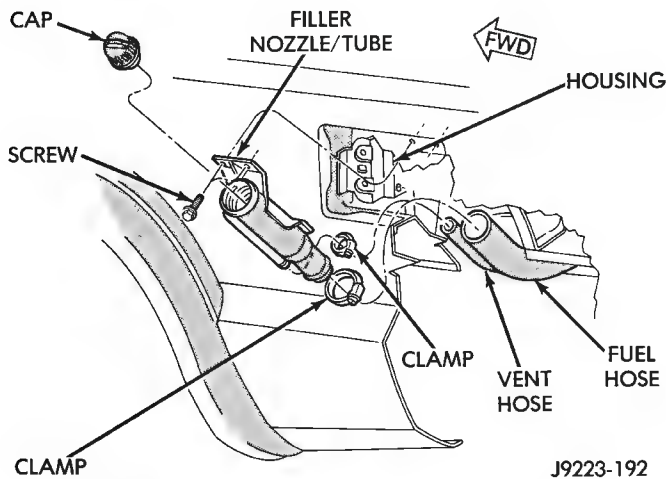
(4) Remove the screws that attach the nozzle to the housing.

(5) Remove the nozzle/tube from the fuel filler housing (Fig. 22).

#### INSTALLATION

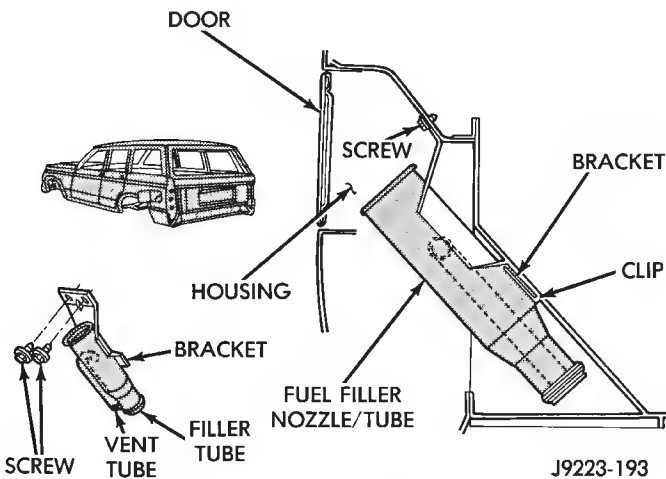
(1) Insert the fuel filler nozzle/tube into the housing.

(2) Install the screws to attach the nozzle/tube to the housing. Tighten screws to 2 N·m (20 in-lbs) torque.



J9223-192

**Fig. 21 Fuel Filler Nozzle/Tube—XJ Vehicles**



J9223-193

**Fig. 22 Fuel Filler Nozzle/Tube Removal/Installation—XJ Vehicles**

- (3) Attach the hoses to the tubes with clamps. Tighten the clamp screws to 4 N·m (35 in-lbs) torque.
- (4) Install the cap on nozzle.
- (5) Install the fuel filler hose splash shield on the quarter inner panel and frame rail.
- (6) Install the fuel filler door on the quarter panel.

## FUEL FILLER DOOR BUMPERS—XJ

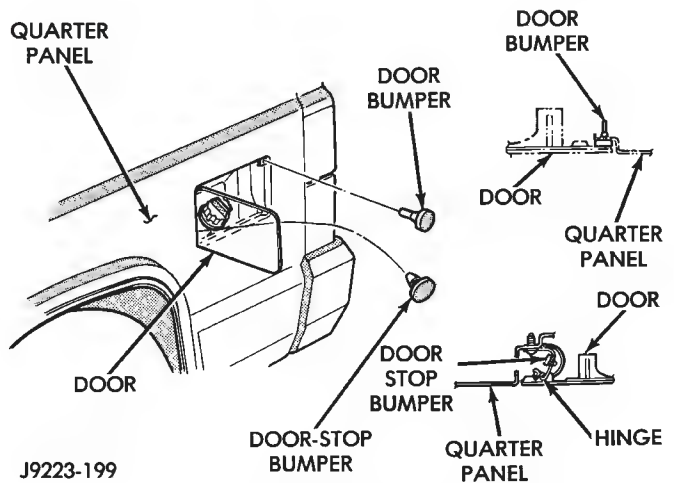
### REPLACEMENT

- (1) Grasp the bumper (Fig. 23) with pliers and pull outward to remove it from the hole.
- It may be necessary to remove the door (Fig. 24) to replace the door-stop bumper.
- (2) Insert bumpers in the holes and force them inward until they are seated in the holes.

## EXTERNAL MIRRORS—XJ

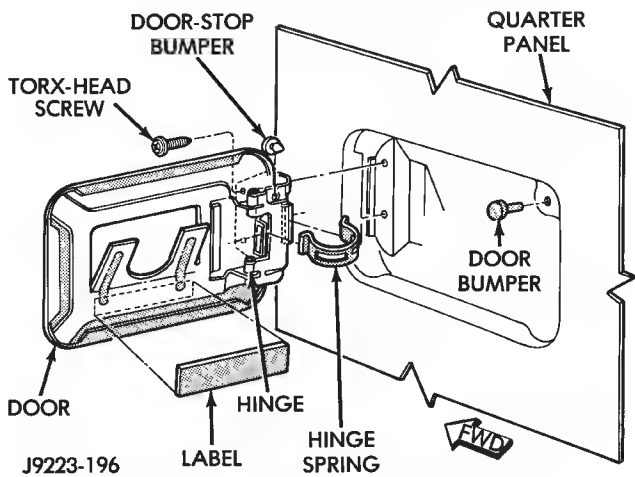
### SERVICE INFORMATION

Service procedures for all external rear view mirrors are below.



J9223-199

**Fig. 23 Fuel Filler Door Bumpers**



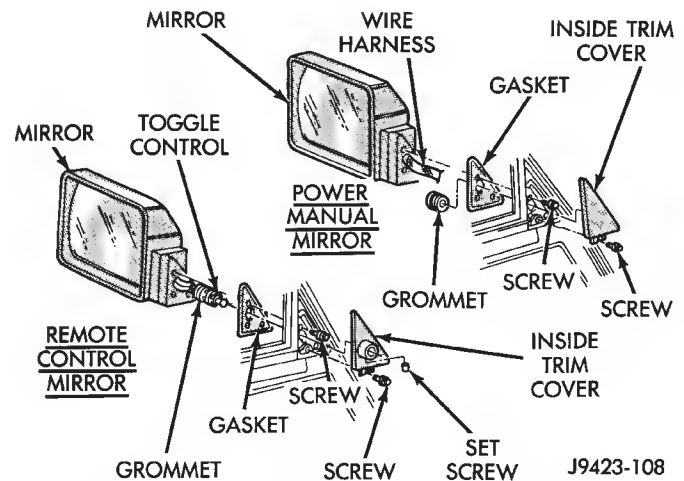
J9223-196

**Fig. 24 Fuel Filler Door-Stop Bumper**

## REMOTE AND POWER/MANUAL MIRRORS

### REMOVAL

- (1) Remove the door trim panel.
- (2) Remove the mirror inside trim cover screw (Fig. 1).

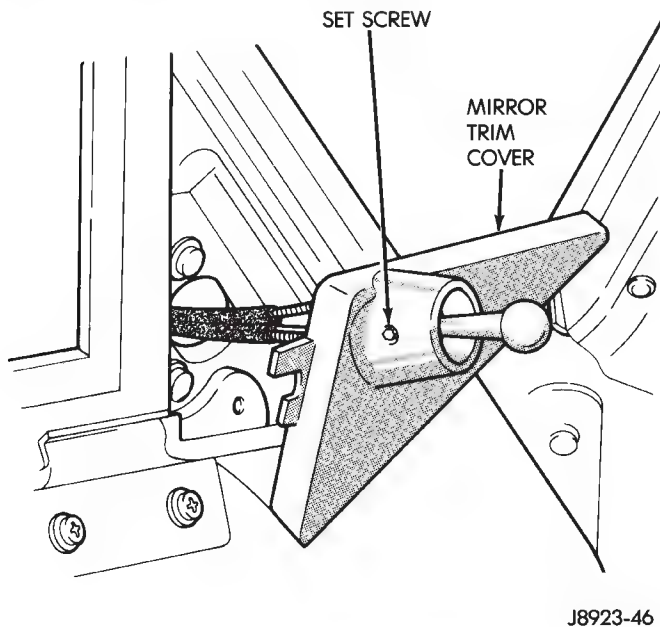


J9423-108

**Fig. 1 Remote Mirrors—Power/Manual**

(3) For power/manual mirrors, remove the inside trim cover.

(4) For remote control mirrors, loosen the toggle control setscrew (Fig. 2).



**Fig. 2 Remote Mirror Toggle Control Set Screw**

(5) For remote control mirrors, remove the inside trim cover (Fig. 3).

(6) Remove the mirror screws.

(7) Remove the mirror from the door. Refer to Group 8, Electrical.

#### INSTALLATION

(1) Position the mirror adjacent to the vent window.

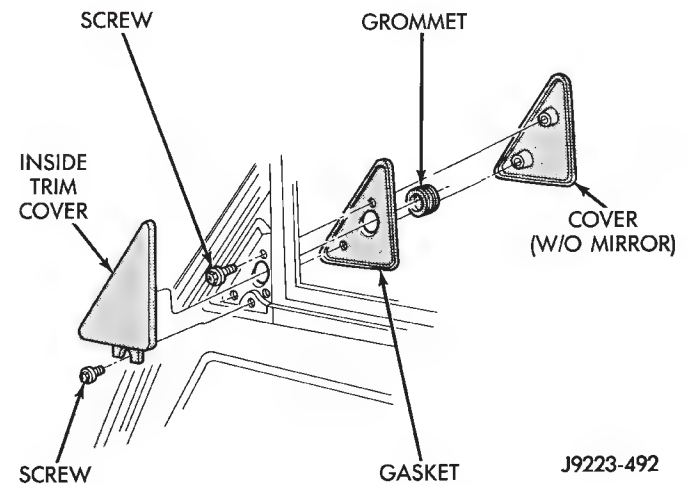
(2) Install the mirror screws. Tighten the screws securely.

(3) For remote mirrors, position the inside trim cover over the toggle control and tighten the set-screw.

(4) Install the inside trim cover.

(5) Install the inside trim cover screw.

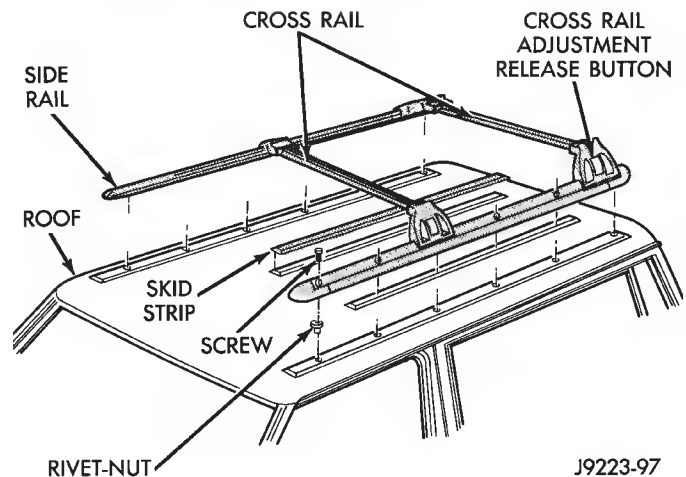
(6) Install the door trim panel.



**Fig. 3 Trim Covers Without External Mirror**  
**LUGGAGE RACK—XJ**

#### REMOVAL

(1) Remove the slide rail screws (Fig. 4).



**Fig. 4 Luggage Rack**

(2) Remove the luggage rack from the roof.

**The skid strips are attached to the roof panel with adhesive.**

(3) Loosen each skid strip with a heat gun.

(4) Lift one edge of each skid strip with a putty knife and peel it from the roof panel.

(5) Remove the original adhesive from the roof with an adhesive removal solution.

(6) If the original skid strips are installed, remove all the original adhesive from them.



**INSTALLATION**

(1) Install 3M 06379 double-sided tape, or an equivalent on skid strips.

(2) Remove the backing from the double-sided tape, align each skid strip on the roof, and position it on the roof panel (Fig. 5).

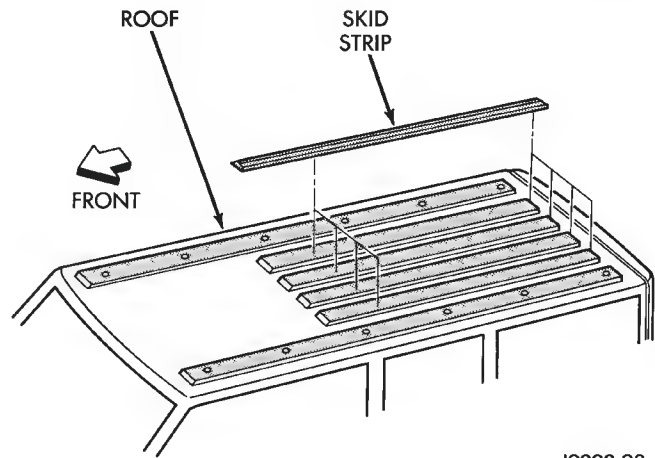
(3) Verify that each skid strip is properly aligned.

(4) Press each skid strip onto the roof panel with a roller (or use hand pressure).

**To prevent water leaks, apply 3M Drip-Chek Sealant, or equivalent.**

(5) Position the luggage rack on the roof with the screw holes aligned.

(6) Install and tighten the slide rail screws to 3 N·m (28 in-lbs) torque.



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**Fig. 5 Skid Strip Installation**

## DOORS

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## SERVICE INFORMATION

The door service procedures includes removal, installation and/or replacement of the following door components:

- Door handles.
- Armrests.
- Trim panels.
- Waterdams.
- Door restraints.
- Front doors.

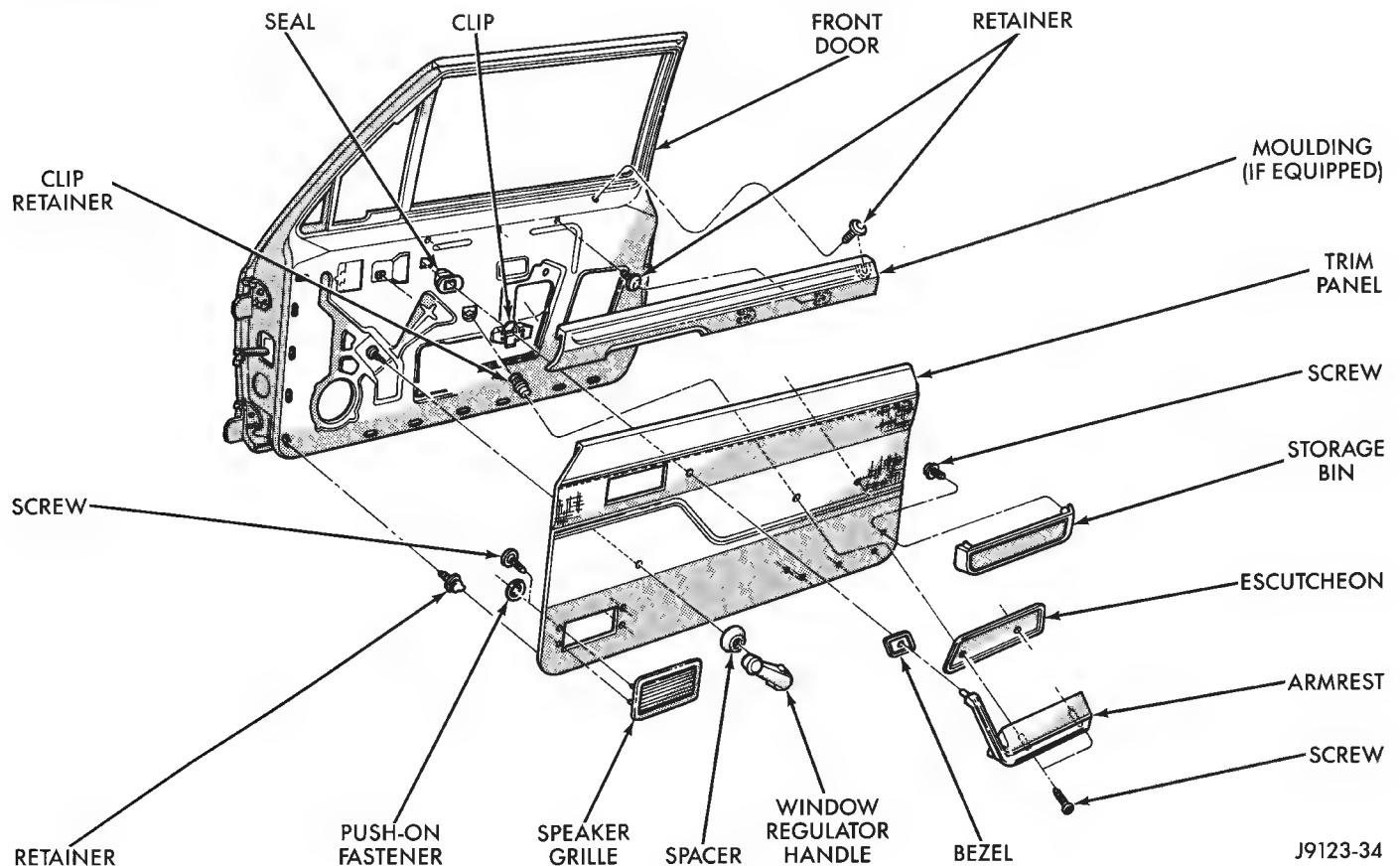
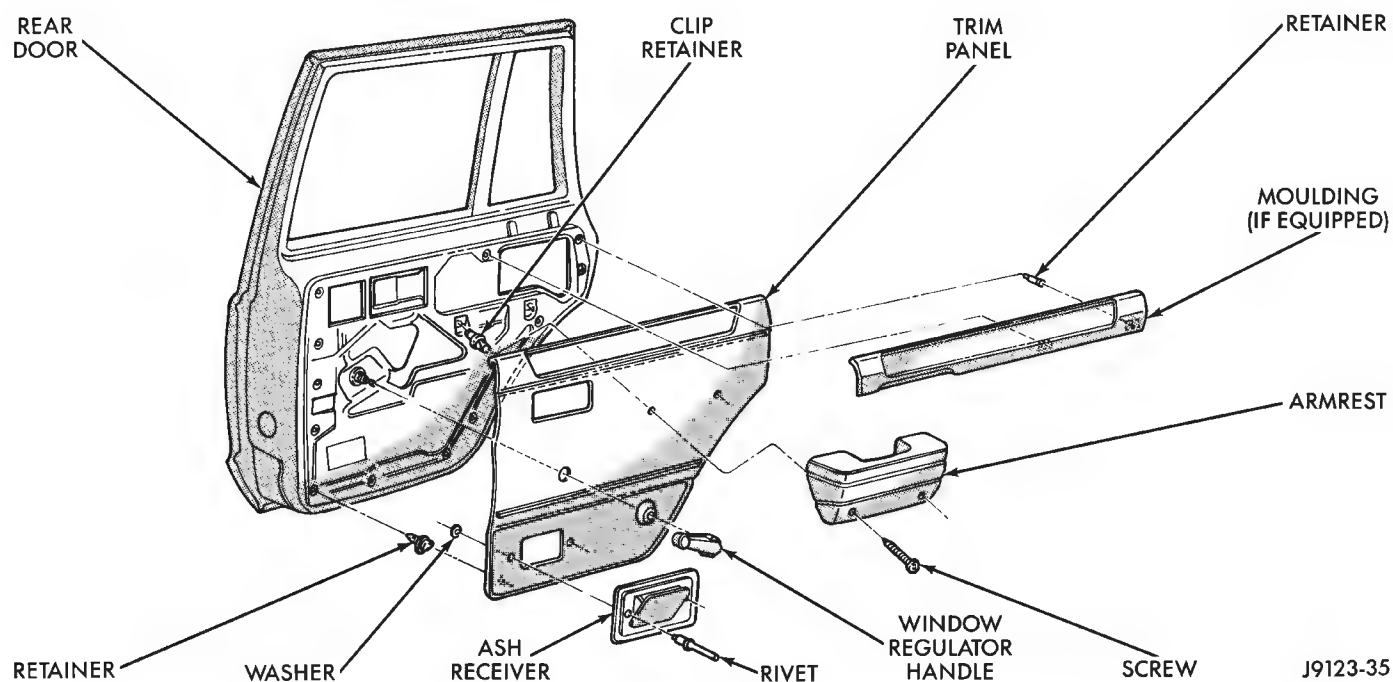


Fig. 1 Front Door Trim Panel

J9123-34



**Fig. 2 Rear Door Trim Panel**

- Rear doors.
- Window glass regulators.
- Key lock cylinders.
- Door half-hinges.
- Liftgate.
- Liftgate hinges.
- Liftgate gas support rod cylinders.
- Rocker panel seals.
- Moldings/weatherstrip seals.

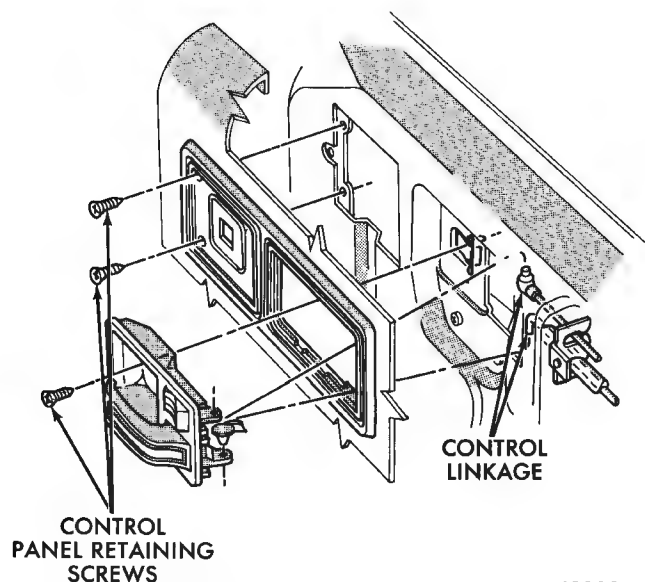
### DOOR TRIM PANEL—XJ

#### SERVICE INFORMATION

All attached components can be removed from door trim panels (Fig. 1 and 2).

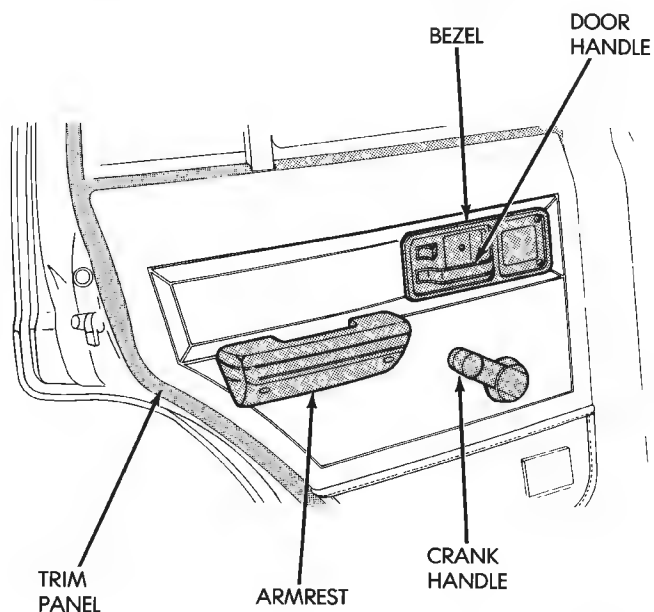
#### REMOVAL

(1) Remove the door inside latch release handle screws (Fig. 3 and 4).



J898S-6

**Fig. 3 Front Door Inside Latch Release Handle**

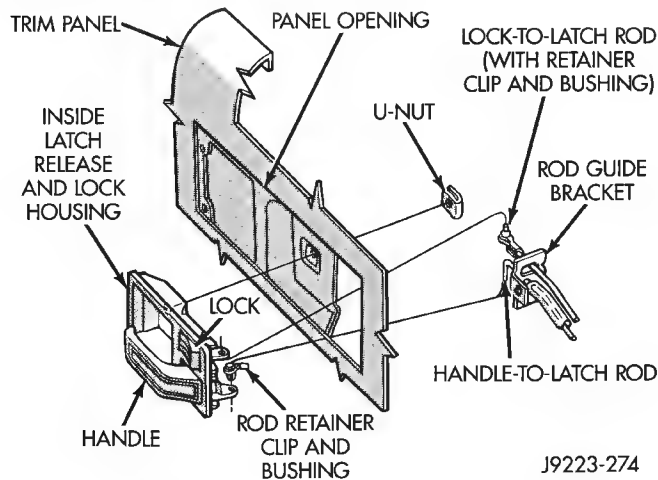


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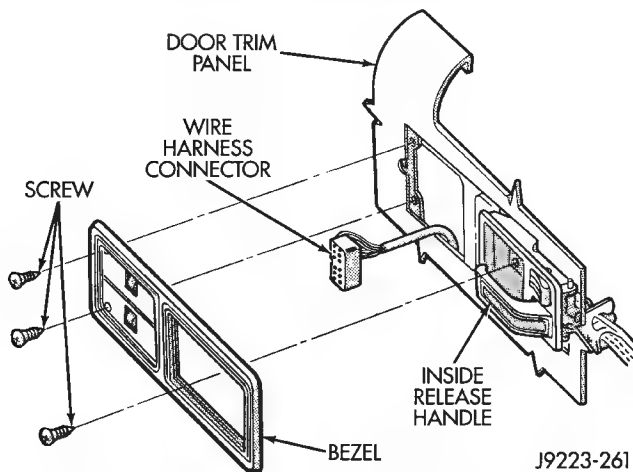
**Fig. 4 Rear Door Inside Latch Release Handle**



(2) Move the door handle outward and disconnect the handle-to-latch rods (Fig. 5). For vehicles equipped with power door locks/windows, disconnect the wire harness connector (Fig. 6).



**Fig. 5 Door Inside Latch Release Rods**

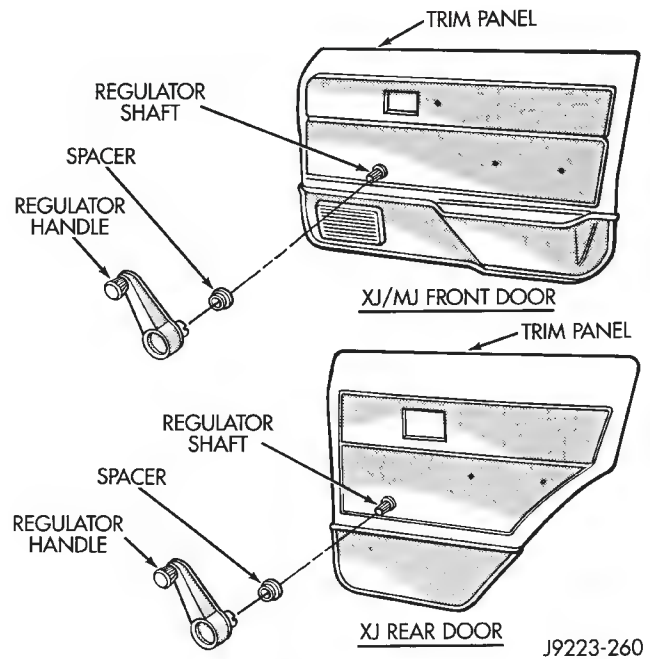


**Fig. 6 Power Switch Wire Harness Connector**

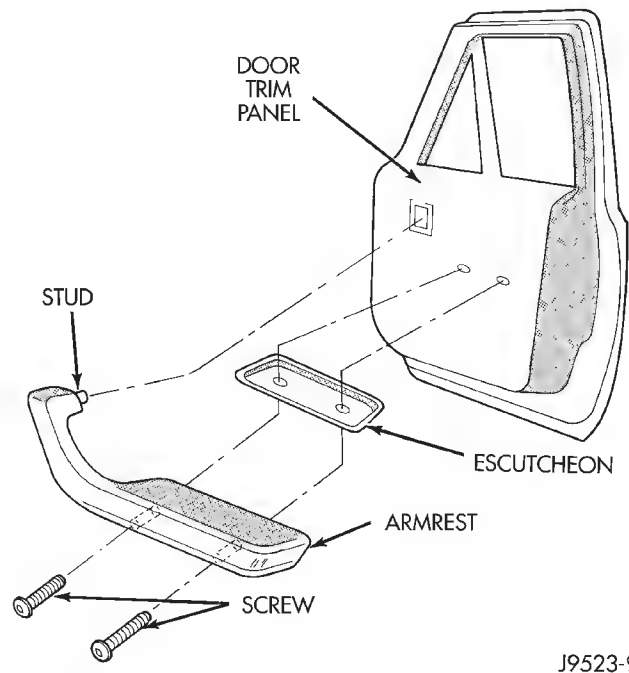
(3) Remove the regulator handle (Fig. 7) or, if equipped, power window switches and bezel.

(4) Remove the armrest lower screws (Fig. 8 and 9).

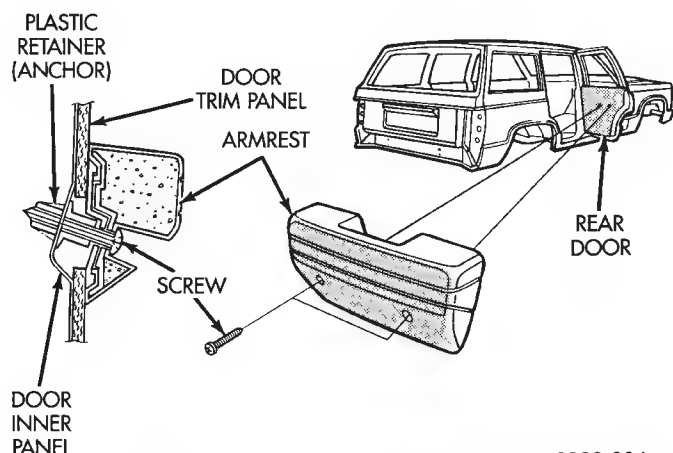
(5) Pull armrest straight outward from panel and remove.



**Fig. 7 Window Regulator Handles**



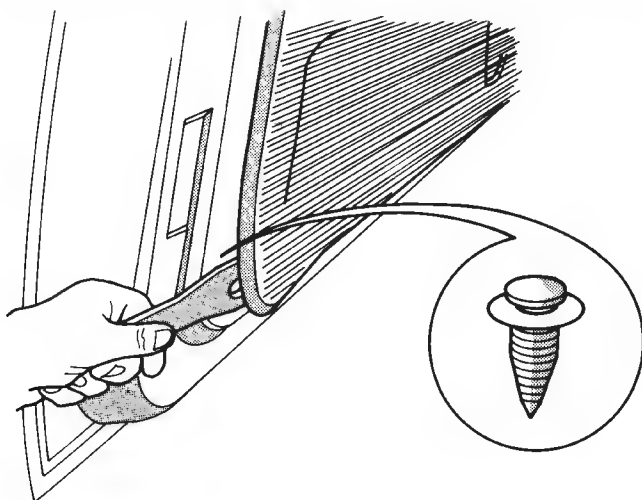
**Fig. 8 XJ Front Door Armrest Removal/Installation**



J9223-286

**Fig. 9 XJ Rear Door Armrest Removal/Installation**

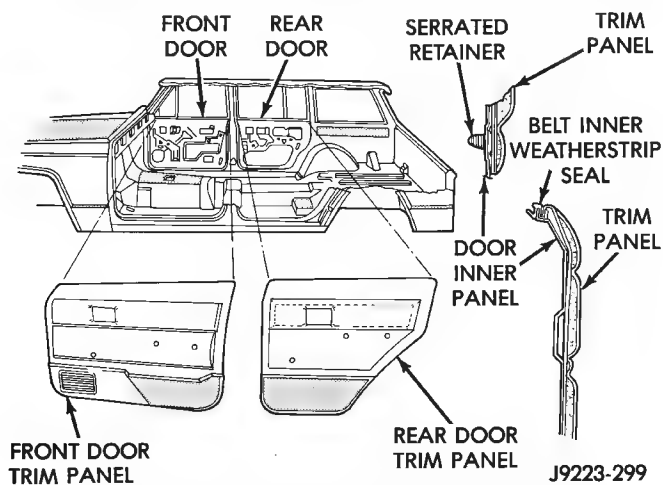
(6) Remove the trim panel fasteners from door inner panel with a pry tool (use special tool C-4829) (Fig. 10).



J898S-8

**Fig. 10 Detaching Trim Panel Push-In Fasteners**

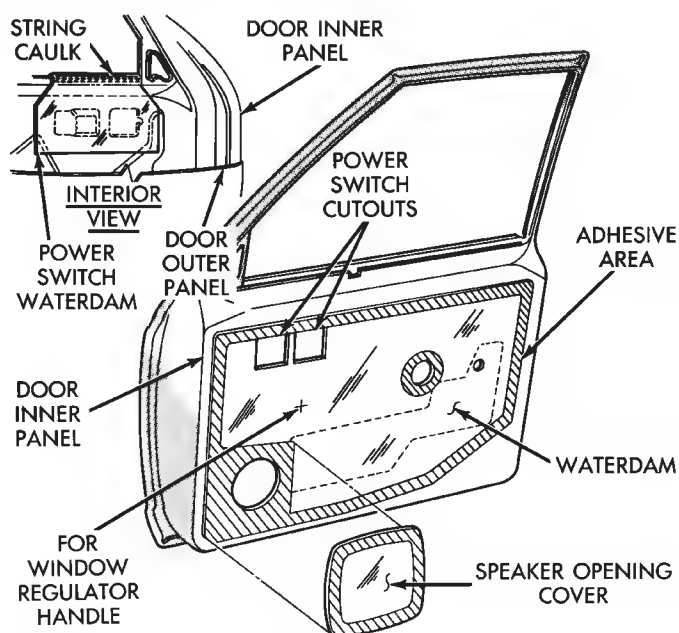
(8) Remove the trim panel from door (Fig. 11).



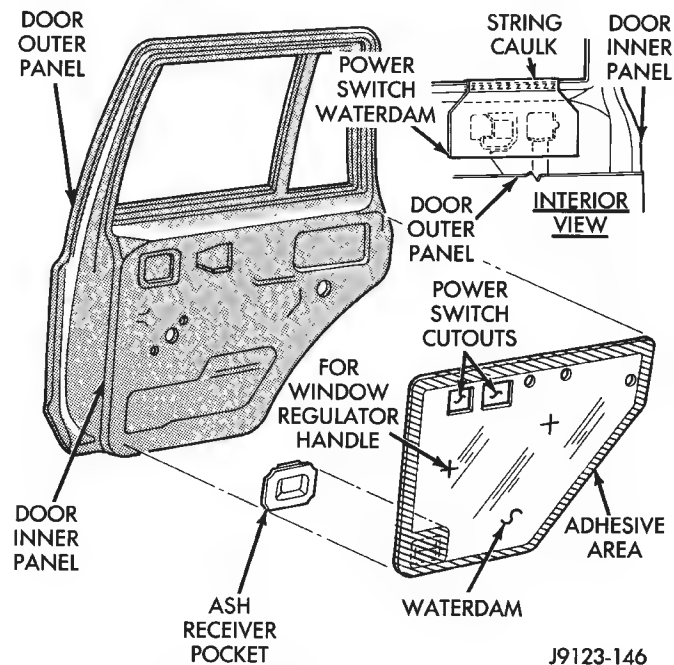
J9223-299

**Fig. 11 Front and Rear Door Trim Panels**

(9) If necessary, remove the waterdam from the door (Fig. 12, 13, 14 and 15).

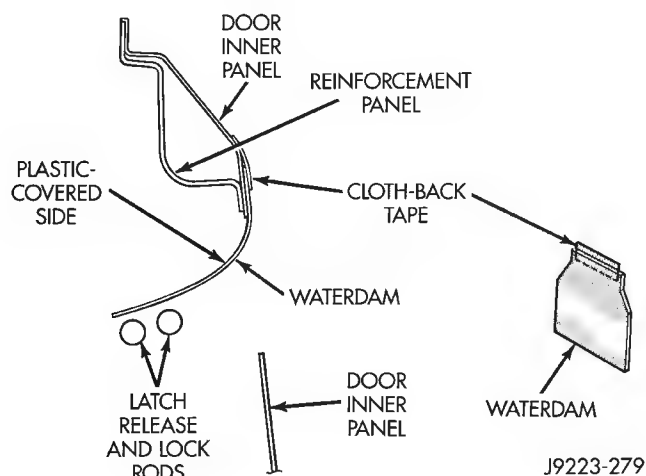


J9123-145

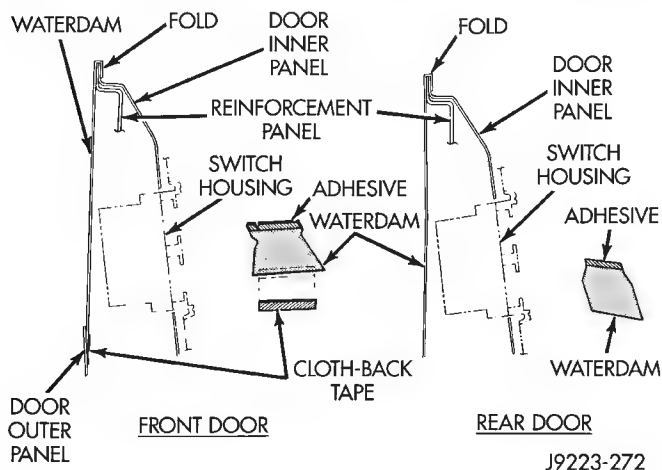
**Fig. 12 Front Door Waterdam**

J9123-146

**Fig. 13 Rear Door Waterdam**

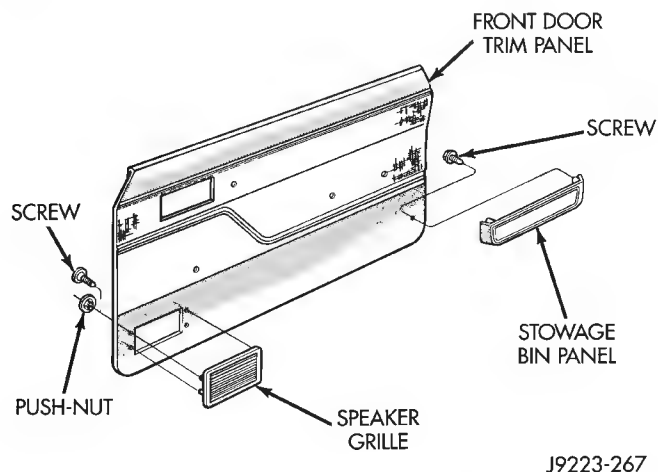


**Fig. 14 Latch Release and Lock Rod Waterdam**



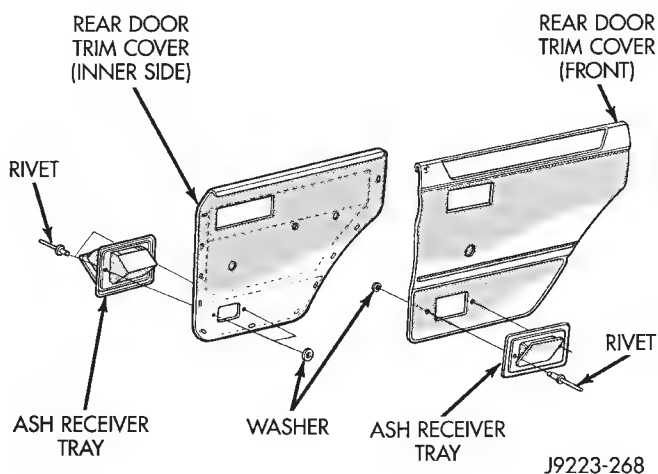
**Fig. 15 Power Switch Waterdam**

(10) If necessary, remove the storage bin panel and speaker grille from the front door trim panel (Fig. 16).



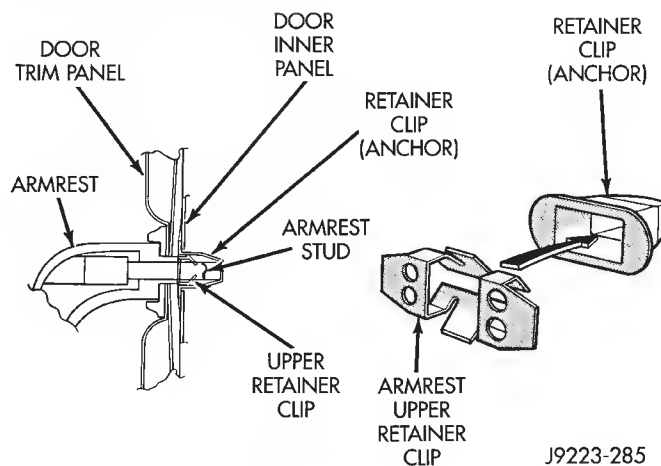
**Fig. 16 Storage Bin Panel and Speaker Grille**

(11) If necessary, remove the ash receiver tray housing from the rear door trim panel (Fig. 17).

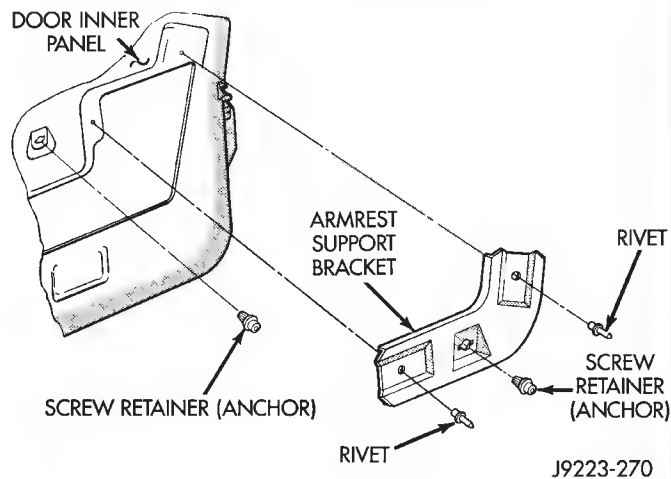


**Fig. 17 Ash Receiver Tray Housing**

(12) If necessary, replace the armrest upper retainer clip, retainer dip anchor and armrest support bracket (Fig. 18 and 19).



**Fig. 18 Armrest Upper Retainer Clip and Anchor**



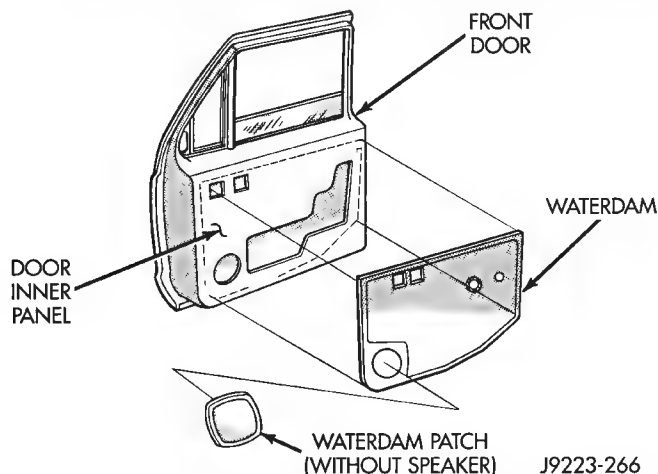
**Fig. 19 Armrest Support Bracket**

## INSTALLATION

(1) If door waterdam was removed, apply sealant to the edges before installing.



(2) Position the waterdam on door inner panel (Fig. 20).



**Fig. 20 Waterdam Installation**

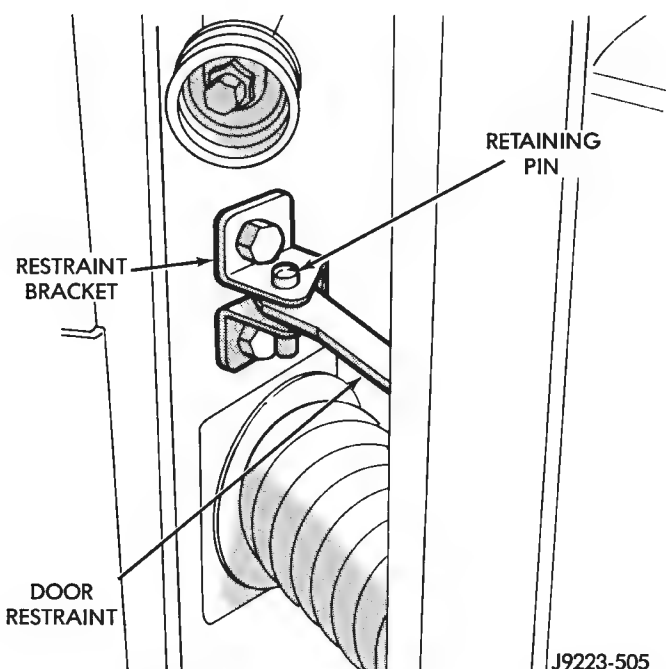
(3) If removed, install the storage bin panel and speaker grille on the front door trim panel.

(4) If removed, install the ash receiver tray housing on the rear door trim panel.

(5) Position the trim panel on the door inner panel and press the retainers inward.

(6) Install the armrest and window glass regulator handle. Or (if equipped) the power window switches and bezel. Tighten the armrest screws to 4 N·m (34 in-lbs) torque.

(7) Connect the rods to the inside latch release handle and install the handle. Tighten the screws to 2 N·m (16 in-lbs) torque. For vehicles with power door locks/windows, connect the wire harness connector.



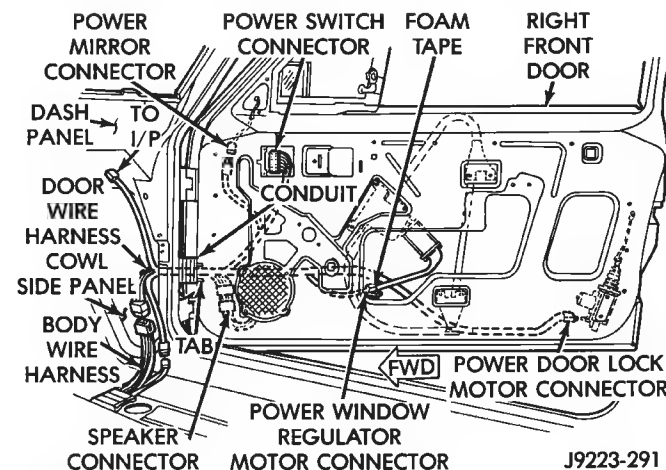
**Fig. 1 Door Restraint Retaining Pin**

## DOOR REMOVAL/INSTALLATION—XJ

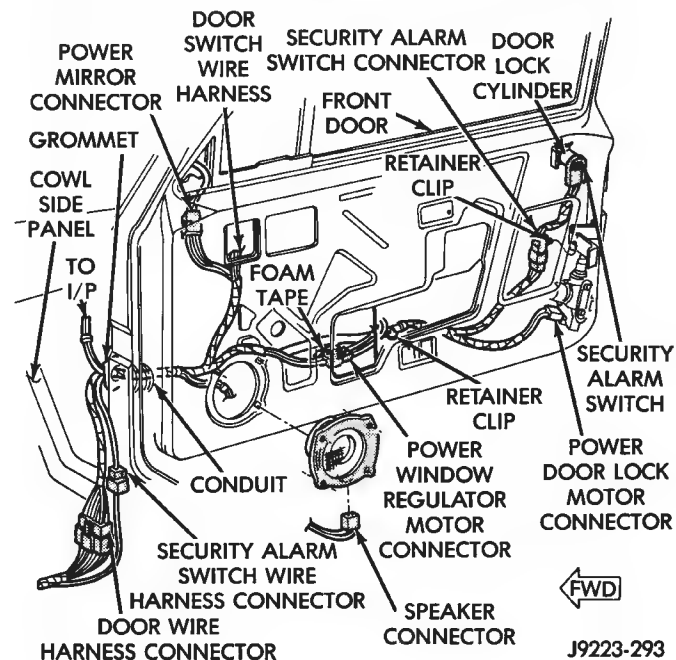
### REMOVAL

(1) Remove the door restraint (check) retaining pin (Fig. 1) with a punch.

(2) For vehicles equipped with power windows and power door locks, remove the trim panel and disconnect all components. Slide the wire harness out of the boot and door (Fig. 2, 3, 4, 5 and 6)



**Fig. 2 Right Front Door Wire Harness Connectors**



**Fig. 3 Right Front Door Wire Harness Connectors—With Security Alarm Switch**

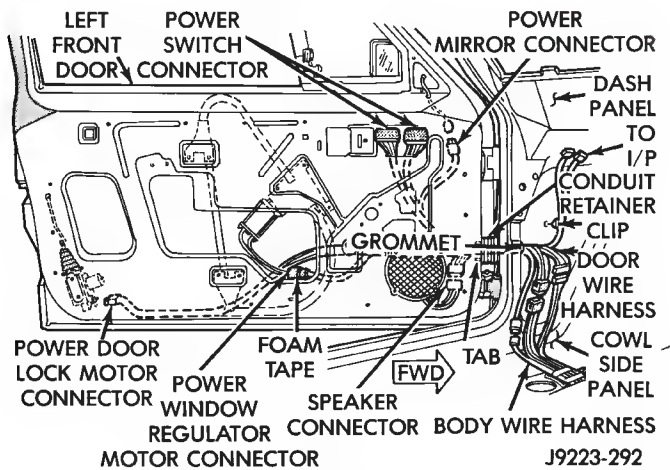


Fig. 4 Left Front Door Wire Harness Connectors

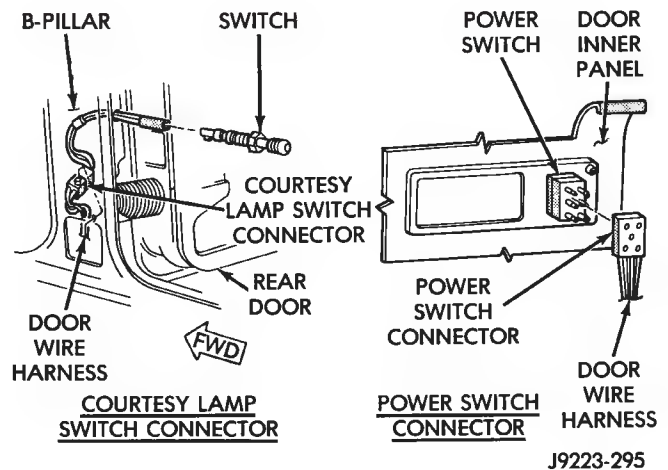


Fig. 6 Rear Door Courtesy Lamp and Power Switch Wire Harness Connectors

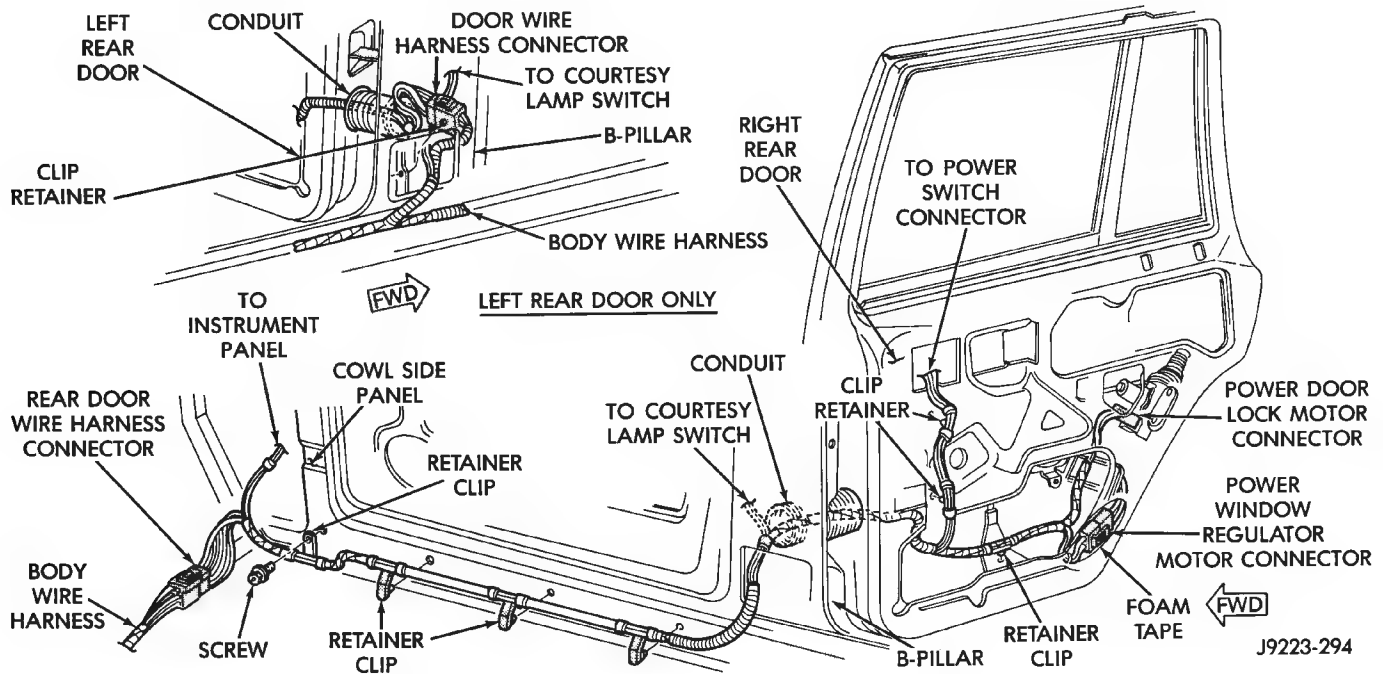
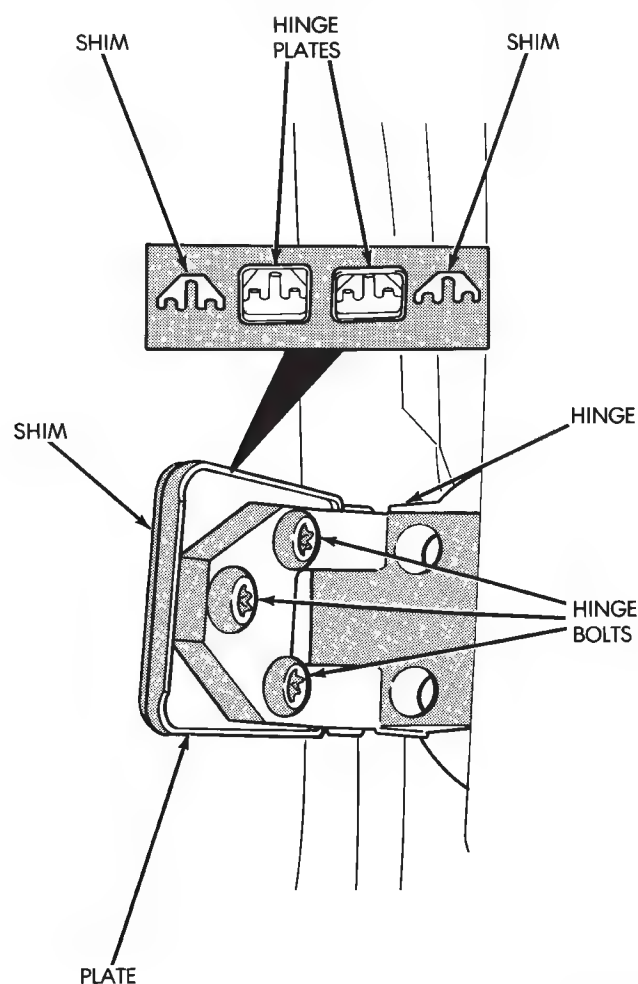


Fig. 5 Rear Door Wire Harness Connectors

(3) Remove the door hinge bolts, plates and shims (Fig. 7). Remove the door from the vehicle.



J8923-58

**Fig. 7 Door Hinges, Bolts, Plates and Shims**

(4) Identify and retain the door hinge plates and the shims for correct installation (Fig. 7).

### INSTALLATION

(1) If a new front door is being installed, coat the door interior with anti-corrosion wax. Seal the door flange with sealant (Fig. 8).

(2) Before installing a replacement door, transfer original window glass, and components to replacement door (Fig. 9, 10, 11 and 12).

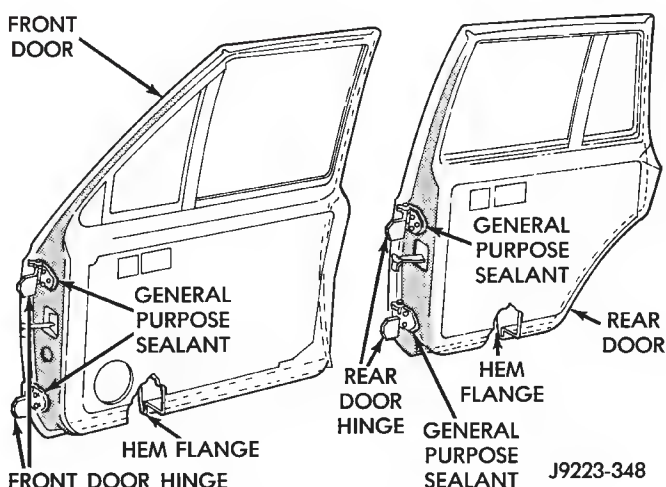
(3) Position the door in the body opening.

(4) Align the door hinges, plates and shims with bolt holes and install the hinge bolts.

(5) Position the door restraint (check) in the bracket with the holes aligned and insert the pin. Tap the pin to seat it in the bracket.

(6) Align/adjust the door as necessary. Tighten the hinge bolts to 35 N·m (26 ft-lbs) torque.

(7) Apply general purpose sealant around the door hinges/door face mating area (Fig. 8).



**Fig. 8 Replacement Door Preparation**

(8) Adjust/align the latch striker and latch as necessary.

(9) If applicable, route and connect the wire harness connectors.

(10) Install the door waterdam (if removed), trim panel, armrest and regulator handle.

### DOOR ALIGNMENT ADJUSTMENT—MINOR

Minor adjustment for alignment of the door is made by moving the latch striker.

### IN AND OUT

(1) Loosen the latch striker.

(2) Tap the latch striker inward if the door character line is outboard of the body character line or tap the latch striker outward if the door character line is inboard of the body character line.

(3) Inspect alignment. If correct, tighten striker with 71 N·m (52 ft. lbs.) torque.\*

### UP AND DOWN

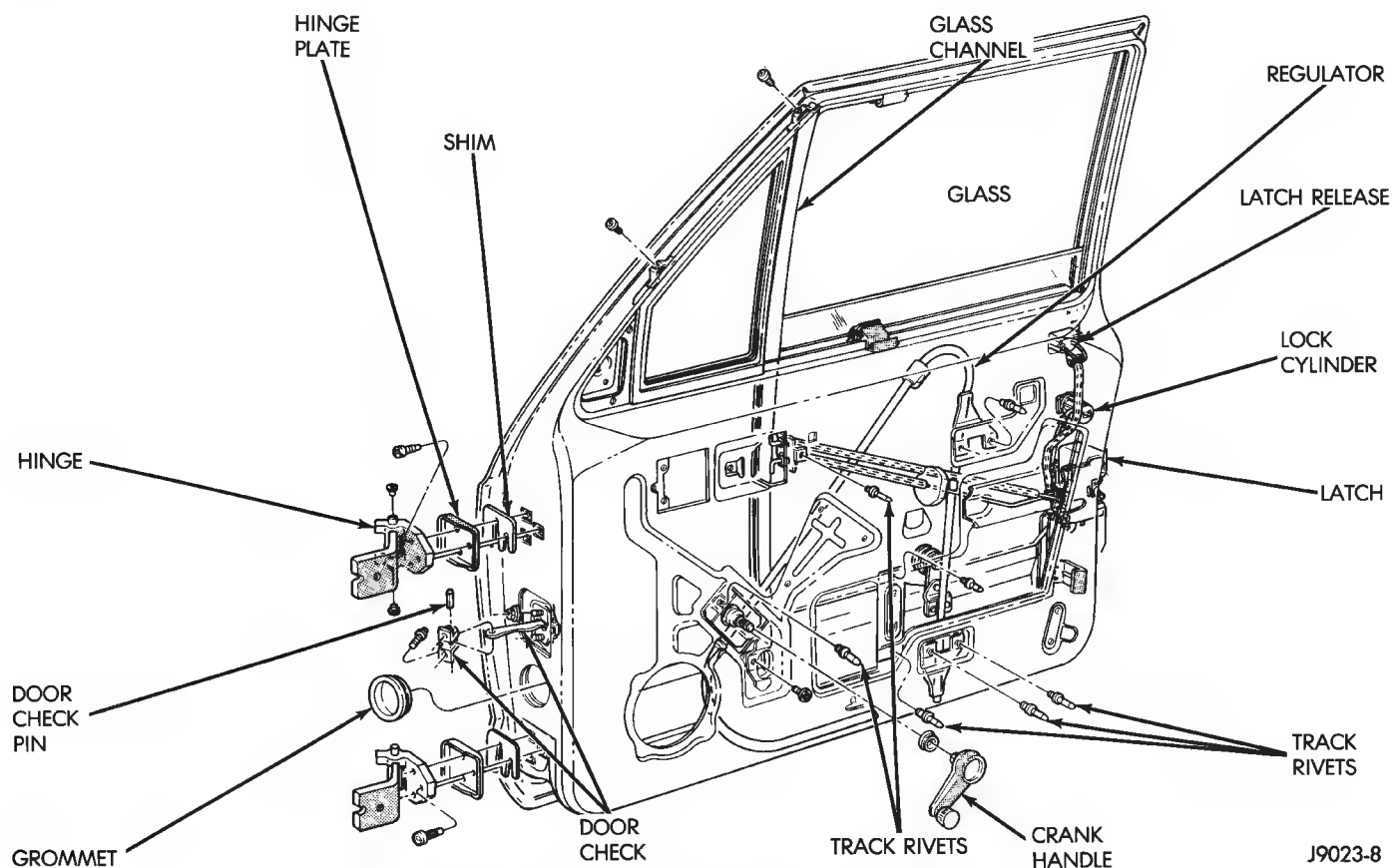
(1) Loosen the latch striker.

(2) Tap the latch striker downward if the door character line is higher than the body character line or tap the latch striker upward if the door character line is lower than the body character line.

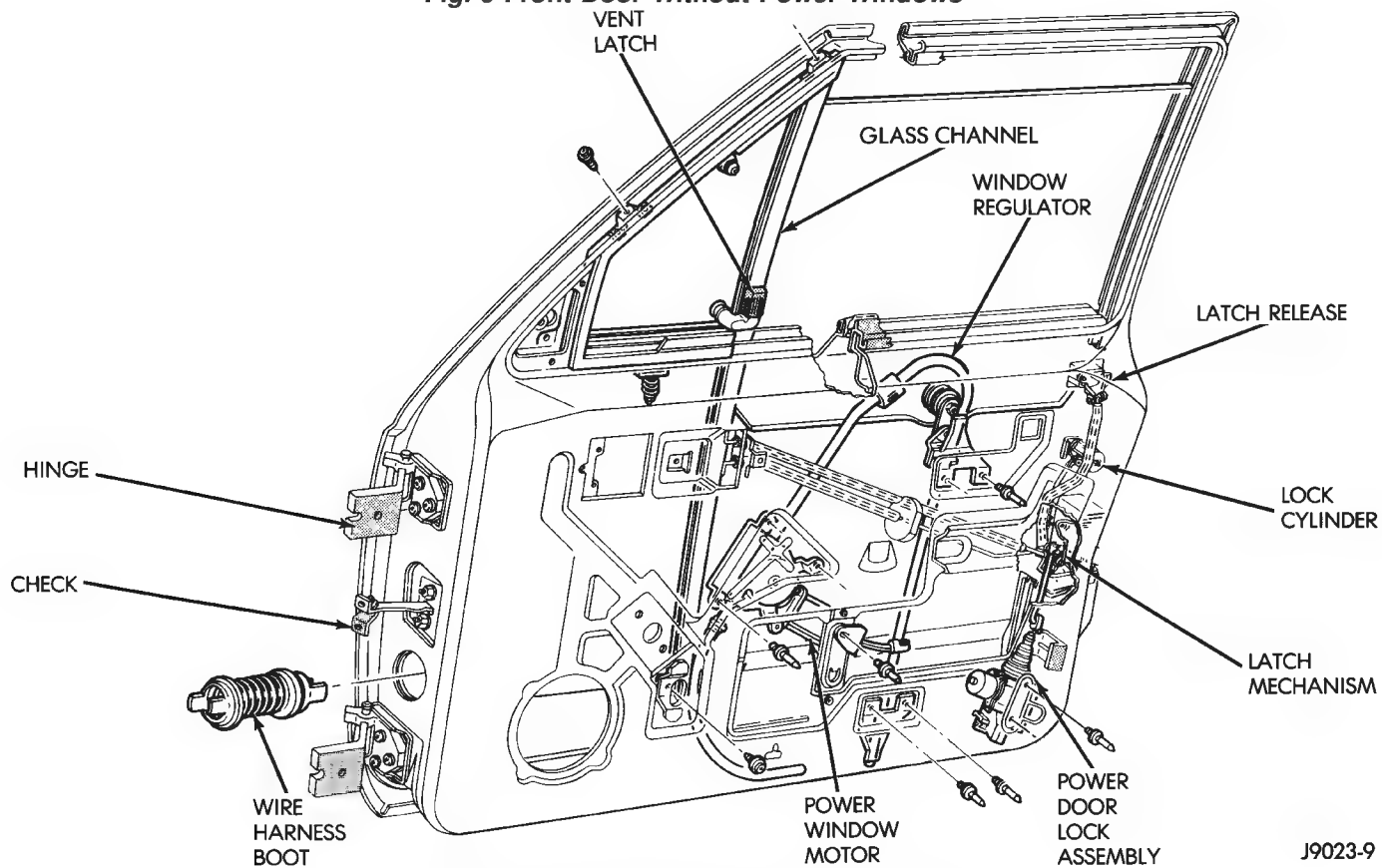
(3) Inspect alignment. If correct, tighten striker with 71 N·m (52 ft. lbs.) torque.\*

\* The center line of the striker anti-snag tab must be horizontal (plus or minus 6 mm).

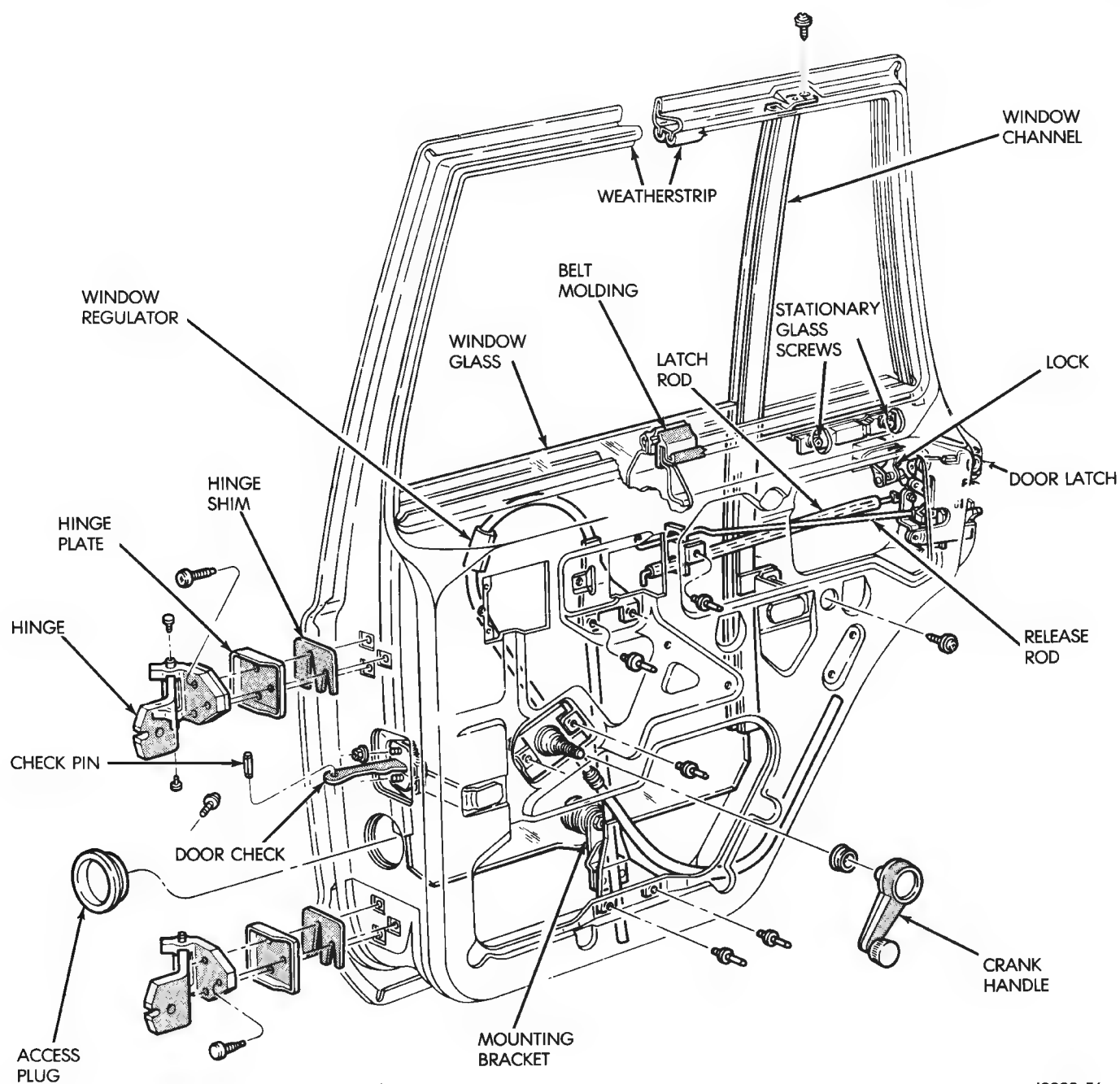




**Fig. 9 Front Door Without Power Windows**

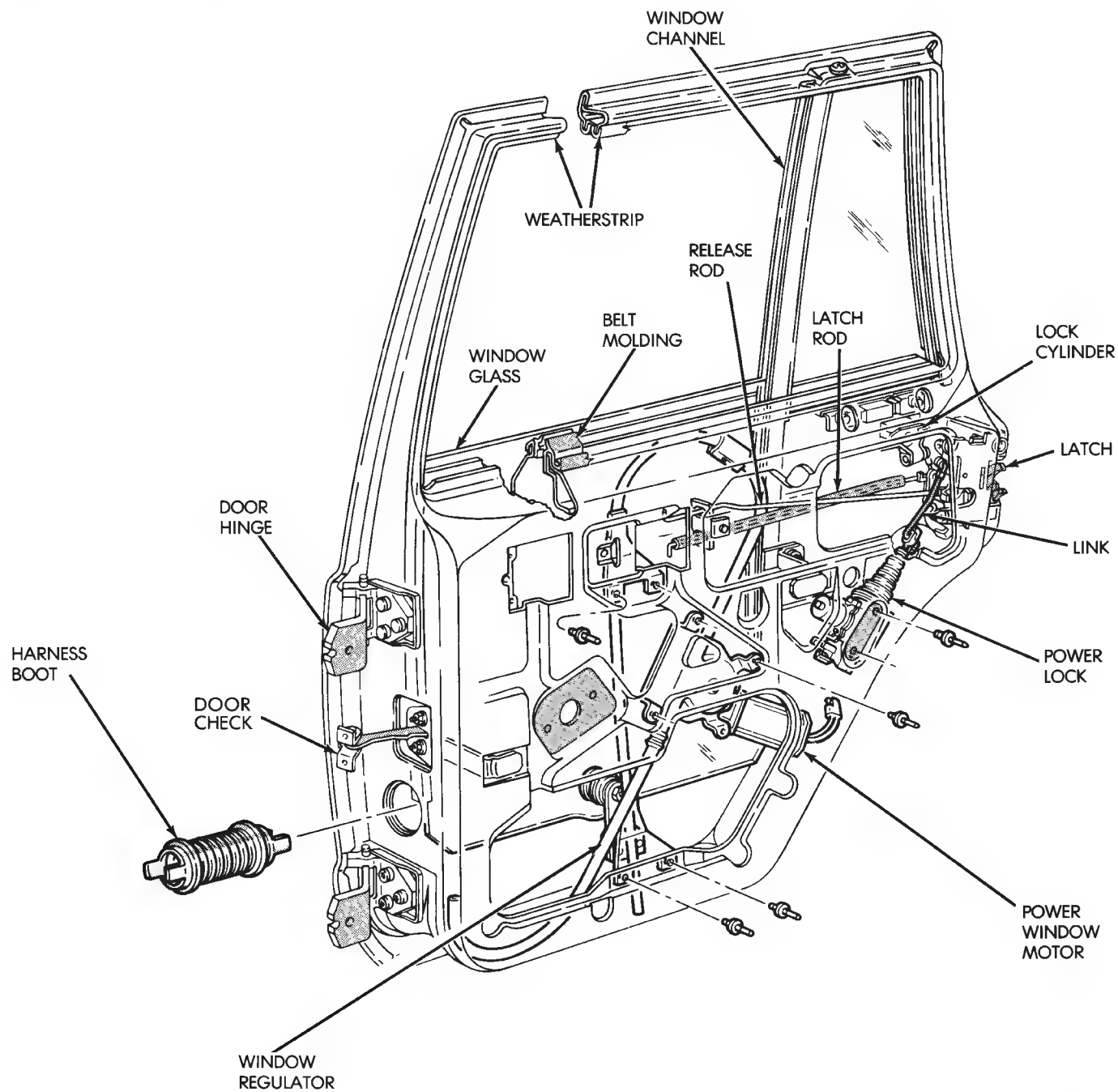


**Fig. 10 Front Door With Power Windows**



J8923-56

**Fig. 11 Rear Door Without Power Windows**



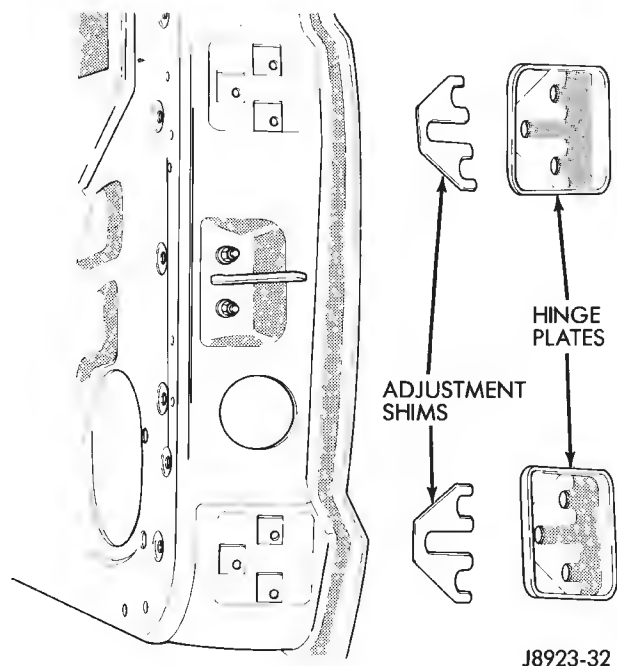
J8923-57

**Fig. 12 Rear Door With Power Windows**



## DOOR ALIGNMENT ADJUSTMENT—MAJOR

Adjustment for alignment of the door is made by installing shims between hinge plates and door face (Fig. 13).



**Fig. 13 Door Adjustment Shims**

- (1) If not loosened, loosen the door hinge bolts (Fig. 7).
- (2) Add or remove shims as necessary to obtain the best door fit.
- (3) Tighten door hinge bolts to 35 N·m (26 ft-lbs) torque after adjustment is completed.
- (4) Apply general purpose sealant around the door hinges/door face mating area.

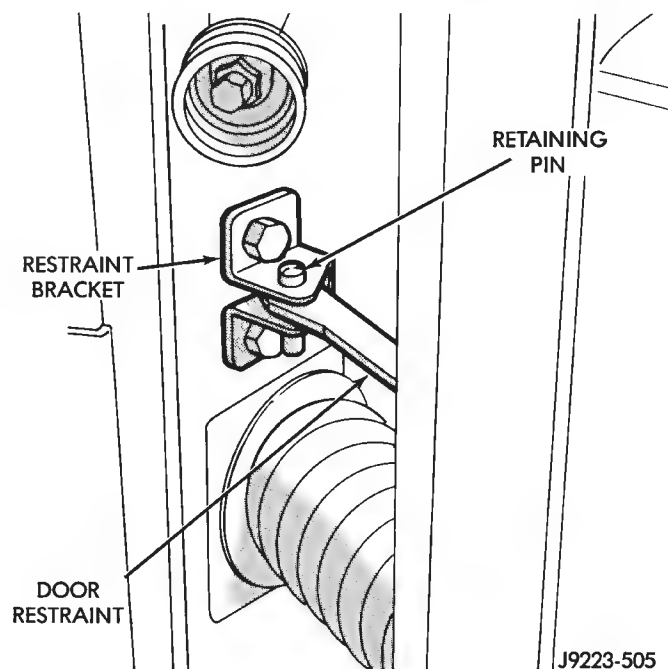
## DOOR RESTRAINT REPLACEMENT—XJ

### REMOVAL

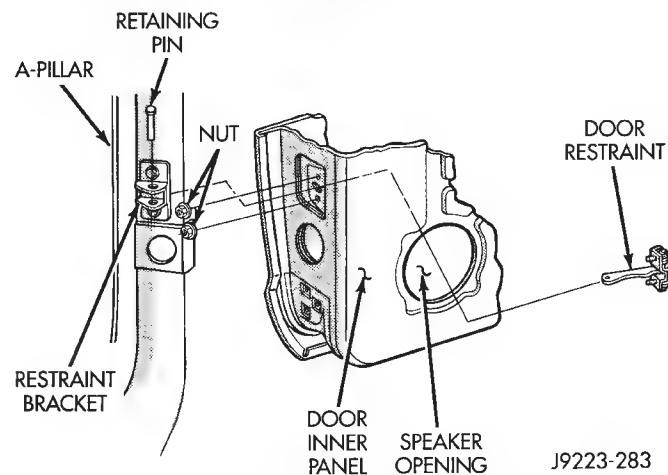
- (1) Remove the door trim panel.
- (2) Front door: remove the door radio speaker from door inner panel.
- (3) Remove the door restraint (check) retaining pin from the bracket with a punch (Fig. 14).
- (4) Remove the nuts and remove the restraint via the speaker opening (front door) or access opening (rear door) in the door inner panel (Fig. 15 and 16).

### INSTALLATION

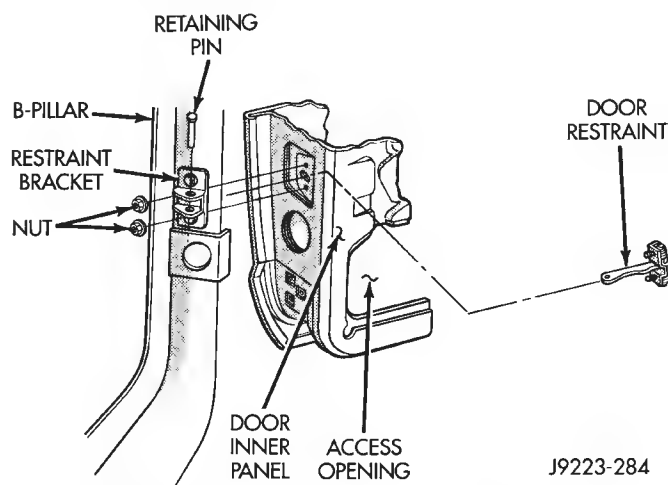
- (1) Position the door restraint in the door by way of the opening and install the nuts. Tighten the nuts to 10 N·m (7 ft-lbs) torque.
- (2) Position the door restraint in bracket with the holes aligned and insert the retaining pin.
- (3) Front door: install the radio speaker and door trim panel.
- (4) Rear door: install the door trim panel.



**Fig. 14 Door Restraint (Check) Retaining Pin**



**Fig. 15 Door Restraint (Check)—Front Door**

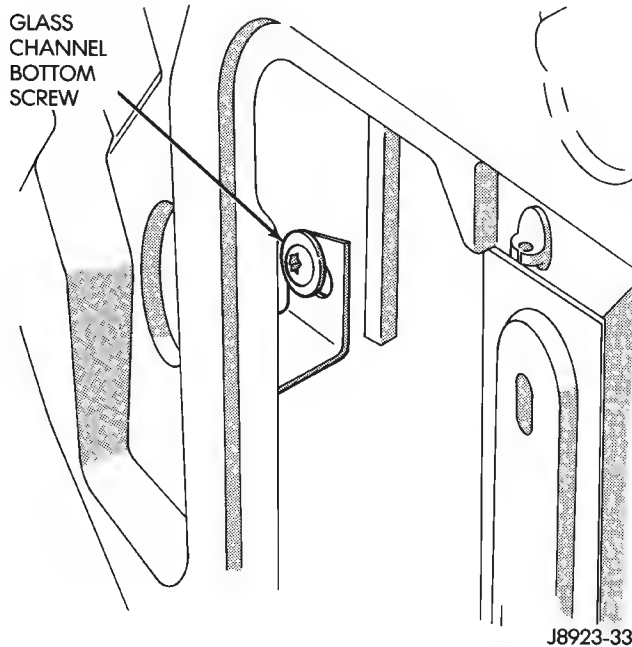


**Fig. 16 Door Restraint (Check)—Rear Door**

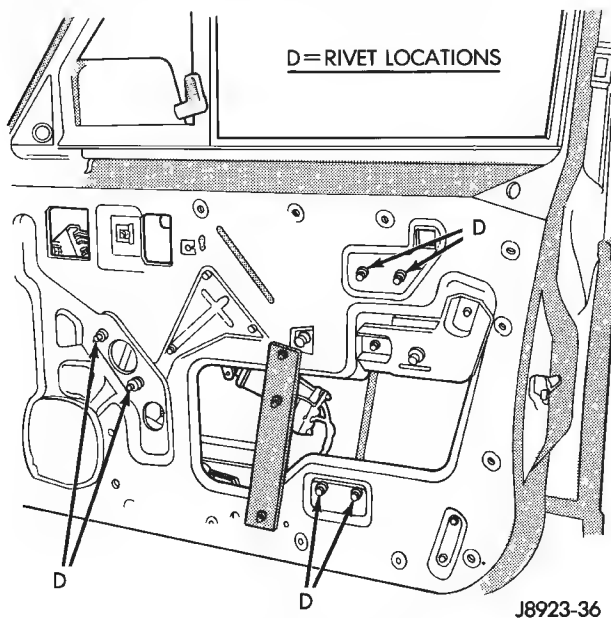
## FRONT DOOR WINDOW GLASS REGULATOR—XJ

**REMOVAL**

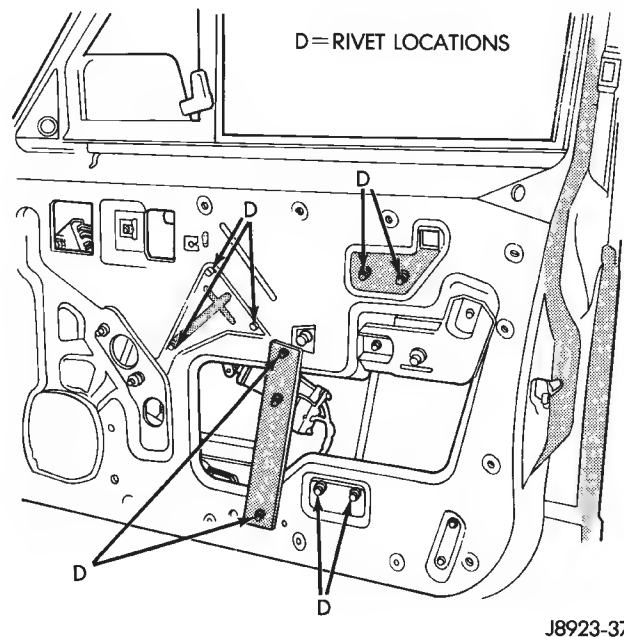
- (1) Remove the door trim panel and waterdam.
- (2) Remove the window glass front channel bottom screw (Fig. 17).

**Fig. 17 Window Glass Front Channel Bottom Screw**

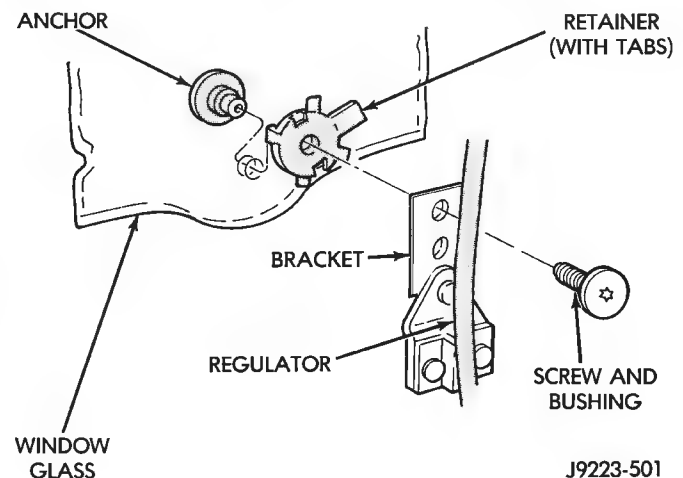
- (3) Remove the window regulator rivets by driving the rivet centers out with a punch. Remove the rivets with a 1/4-inch drill bit (Fig. 18 and 19).

**Fig. 18 Manual Window Regulator Rivets**

- (4) Lower the window to provide access to the regulator-to-glass screw.

**Fig. 19 Power Window Regulator Rivets**

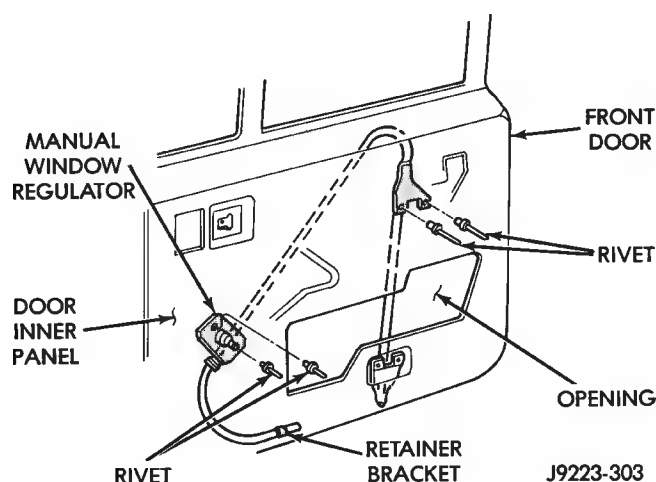
- (5) Remove the regulator-to-glass screw, bushing and retainer from the regulator (Fig. 20).

**Fig. 20 Regulator-To-Glass Screw Removal/Installation**

- (6) Lift the window glass upward and separate it from the regulator. Support the window glass.
- (7) Remove the window glass regulator from the door.

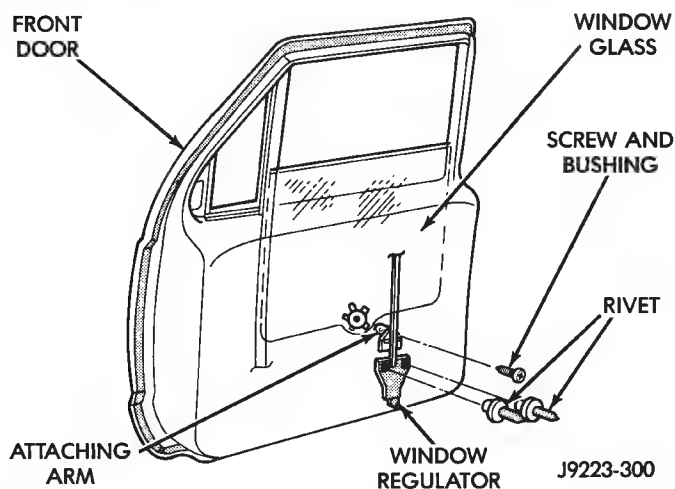
**INSTALLATION**

- (1) Position the window glass regulator within the door panels.
- (2) Attach the regulator on door inner panel with replacement rivets or screws and nuts (Fig. 21, 22, 23 and 24).
- (3) Remove the support and position window glass at regulator. Install the regulator-to-window retainer, bushing and screw.



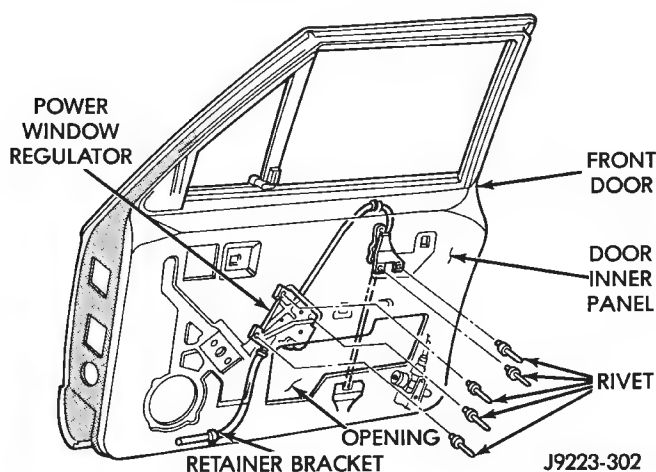
J9223-303

**Fig. 21 Manual Regulator Installation—Upper Rivets**



J9223-300

**Fig. 22 Manual Regulator Installation—Lower Rivets and Glass Retaining Screw**

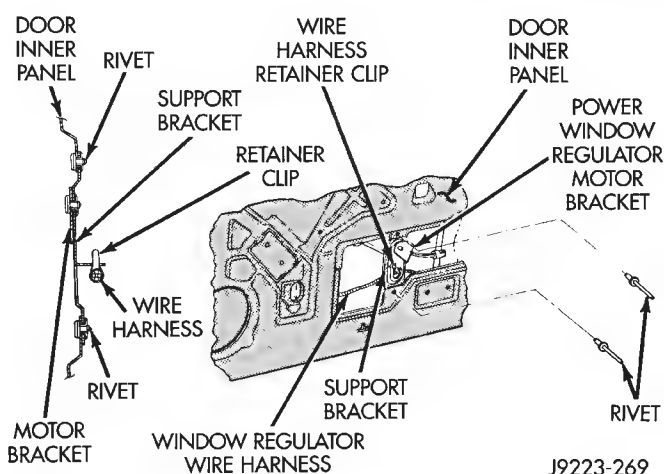


J9223-302

**Fig. 23 Power Regulator Installation—Upper Rivets**

(4) Tighten the regulator-to-glass screw to 4 N·m (36 in-lbs) torque.

(5) Install the glass channel bottom screw (Fig. 17). Tighten screw to 9 N·m (7 ft-lbs) torque.



J9223-269

**Fig. 24 Power Regulator Installation—Lower Rivets**

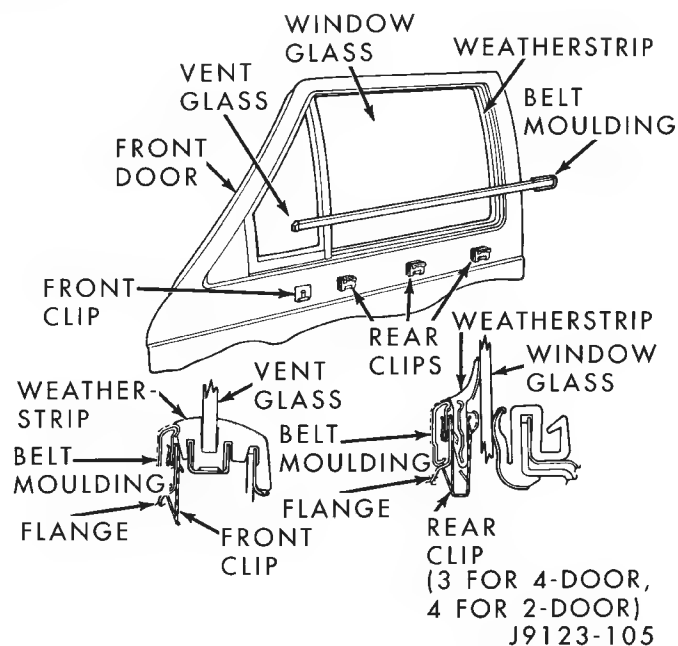
(6) Attach the door waterdam to the door inner panel with sealant.

(7) Install the trim panel.

## FRONT DOOR WINDOW GLASS—XJ

### REMOVAL

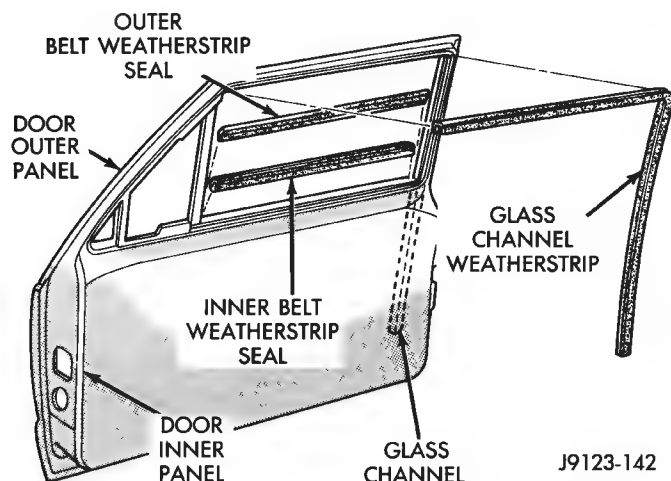
- (1) Remove the door trim panel and waterdam.
- (2) Remove the window glass channel hardware, beltline molding and weatherstrip seals (Fig. 25 and 26).



**Fig. 25 Front Door Beltline Molding and Weatherstrip Seals**

- (3) Remove the glass channel bottom screw.
- (4) Remove the regulator-to-window glass screw, bushing and retainer (Fig. 20).
- (5) Lift the glass upward and out of the door.

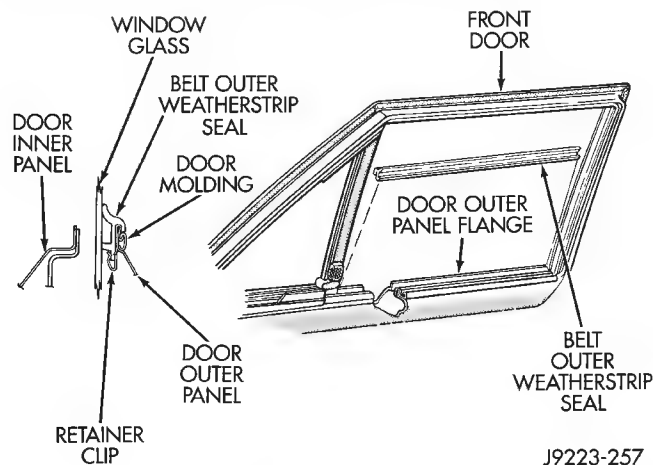




**Fig. 26 Front Door Weatherstrip Seals**

### INSTALLATION

- (1) Position the glass in the door and install the regulator-to-glass retainer, bushing and screw.
- (2) Tighten the screw to 4 N·m (36 in·lbs) torque.
- (3) Install the channel bottom screw. Tighten the screw to 9 N·m (7 ft·lbs) torque.
- (4) Install the channel hardware, beltline molding and weatherstrip seals.(Fig. 27 and 28).



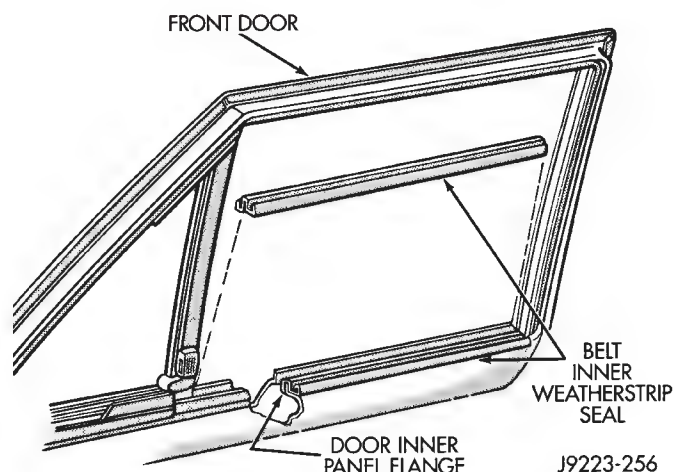
**Fig. 27 Front Door Belt Outer Weatherstrip Seal**

- (5) Attach the door waterdam to the door inner panel with adhesive/sealant.
- (6) Install the door trim panel.

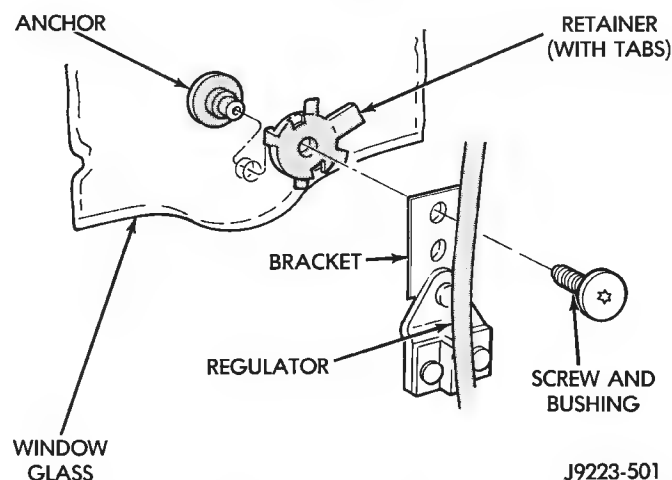
### REAR DOOR WINDOW GLASS REGULATOR—XJ

#### REMOVAL

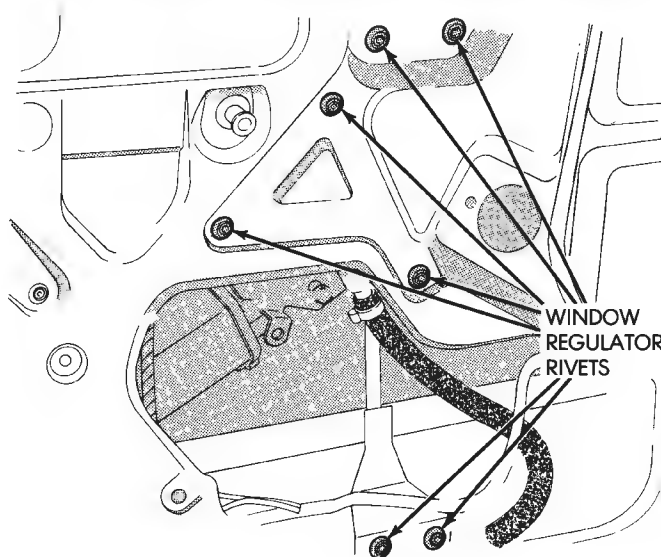
- (1) Remove the door trim panel and waterdam.
- (2) Remove the window glass attaching screw, bushing and retainer from the regulator (Fig. 1). Support the glass.
- (3) Remove the regulator rivets by driving out the rivet center with a punch. Next, drill out the rivet body with a 1/4 inch diameter drill bit (Fig. 2).



**Fig. 28 Front Door Belt Outer Weatherstrip Seal**



**Fig. 1 Regulator-To-Glass Screw Removal/Installation**



**Fig. 2 Rear Door Window Regulator Rivets**

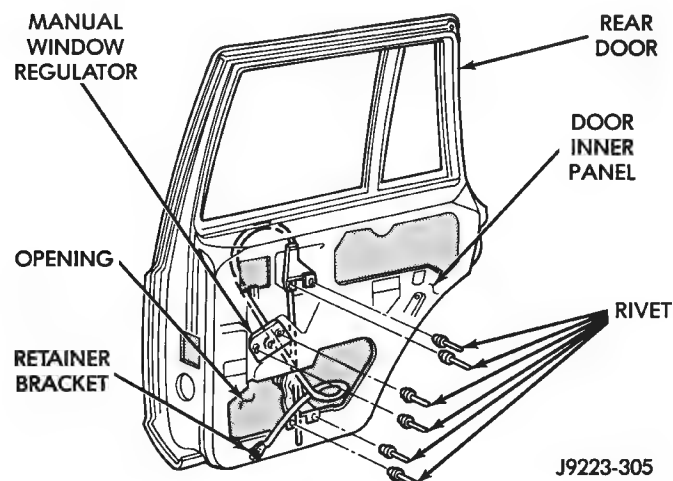
- (4) Power window: disconnect the wire harness connector from the regulator drive motor.

(5) Remove the regulator and drive motor, if equipped.

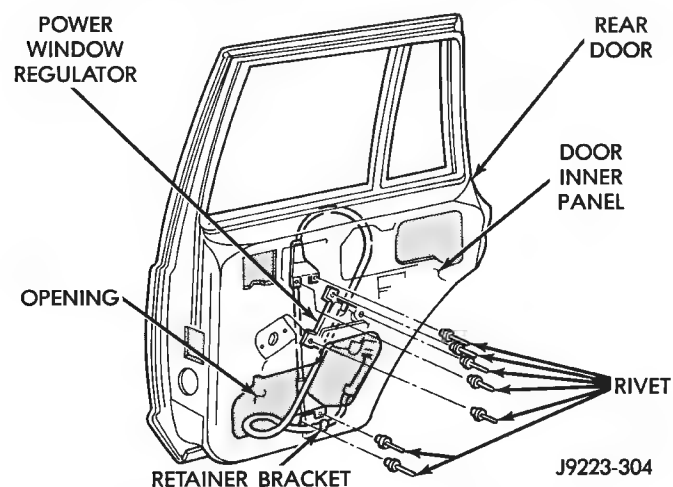
### INSTALLATION

(1) Position window regulator and, if equipped, drive motor within the door panels.

(2) Attach the regulator to door inner panel with replacement rivets or with screws and nuts (Fig. 3, 4 and 5).



**Fig. 3 Manual Regulator Rivet Installation**



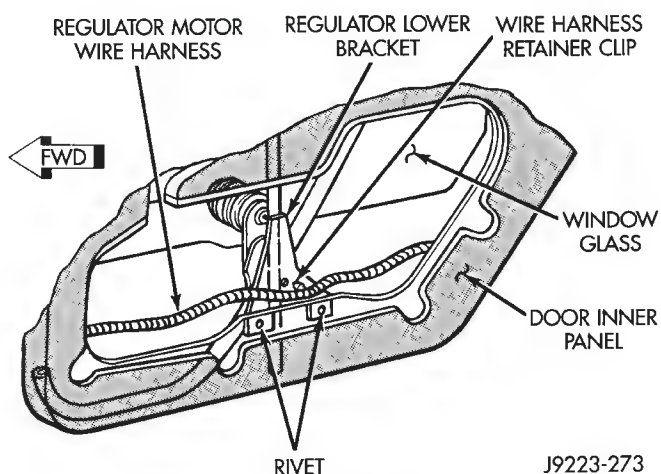
**Fig. 4 Power Regulator Rivet Installation**

- (3) Connect the regulator wire harness connector.
- (4) Position the window glass at the regulator and install the retainer, bushing and screw.
- (5) Tighten the glass screw to 4 N·m (36 in-lbs) torque.
- (6) Install the waterdam and trim panel.

### REAR DOOR WINDOW GLASS—XJ

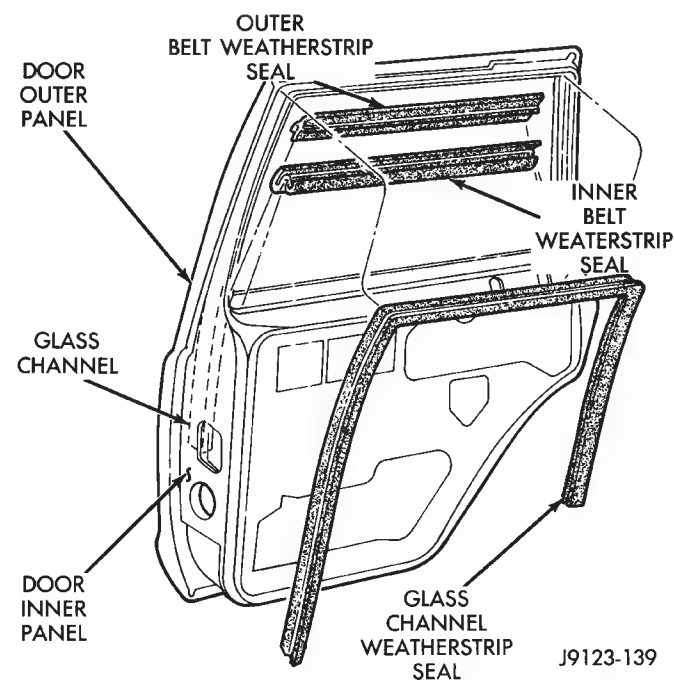
#### REMOVAL

- (1) Lower the window glass.
- (2) Pry the window beltline molding from the clips and remove the molding from the door.



**Fig. 5 Power Regulator Lower Bracket Rivet Installation**

(3) Remove the window weatherstrip seals from the door (Fig. 6).

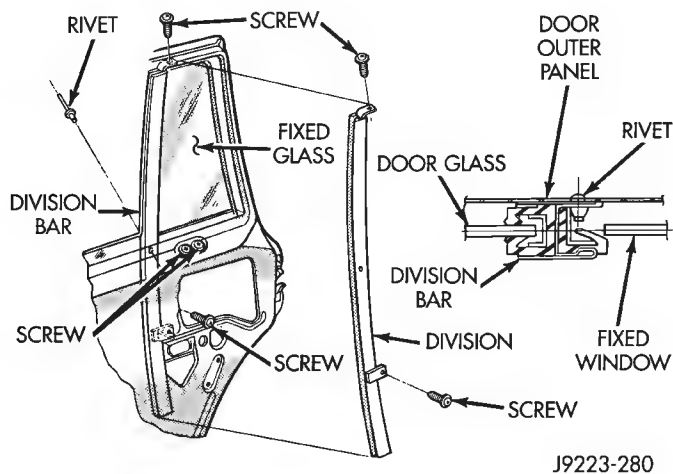


**Fig. 6 Rear Door Window Weatherstrip Seals**

- (4) Remove the trim panel and waterdam from the door inner panel.
- (5) Remove the channel/division bar screws and drill-out the rivet head to remove (Fig. 7 and 8).
- (6) Tilt the channel/division bar forward and remove it from the door.
- (7) Remove the window glass screw, bushing and retainer from the regulator (Fig. 9).
- (8) Remove the window glass from door.

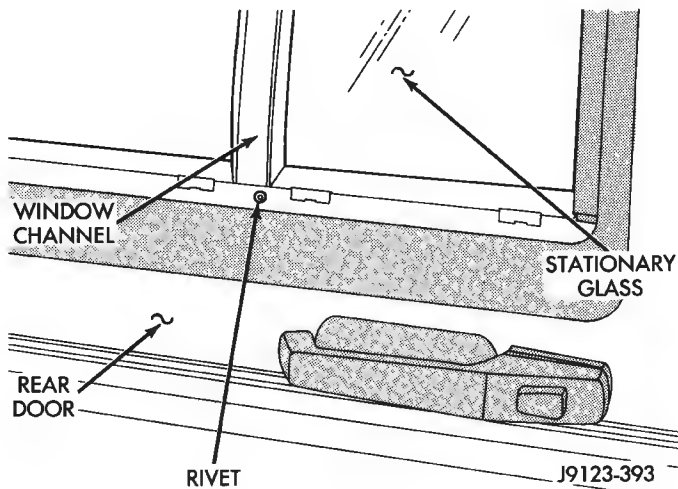
#### INSTALLATION

- (1) Install the glass in the door, and install the retainer, bushing and screw (Fig. 9).



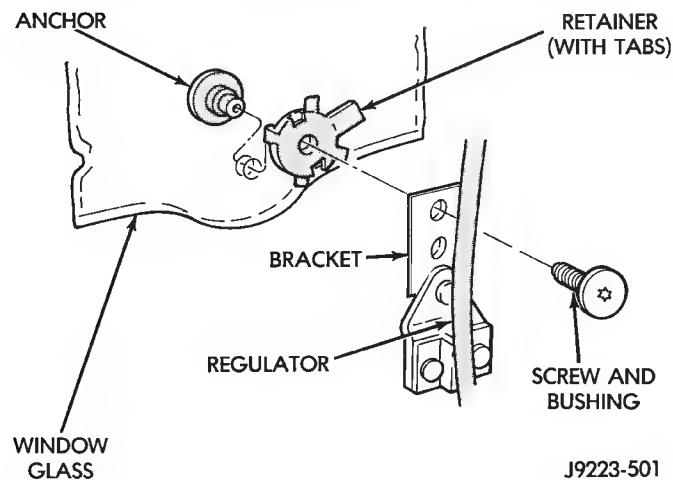
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**Fig. 7 Window Channel/Division Bar Screws and Rivet**



J9123-393

**Fig. 8 Window Channel/Division Bar Rivet**



J9223-501

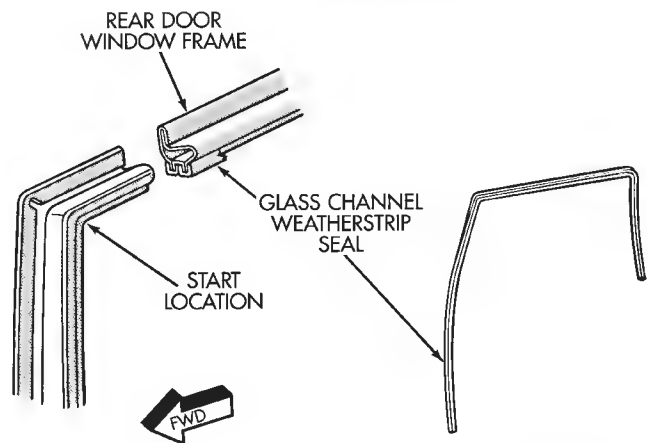
**Fig. 9 Regulator-To-Glass Screw Removal/Installation**

(2) Tighten the glass attaching screw 6 N·m (53 in-lbs) torque.

(3) Install the window glass channel/division bar in the door.

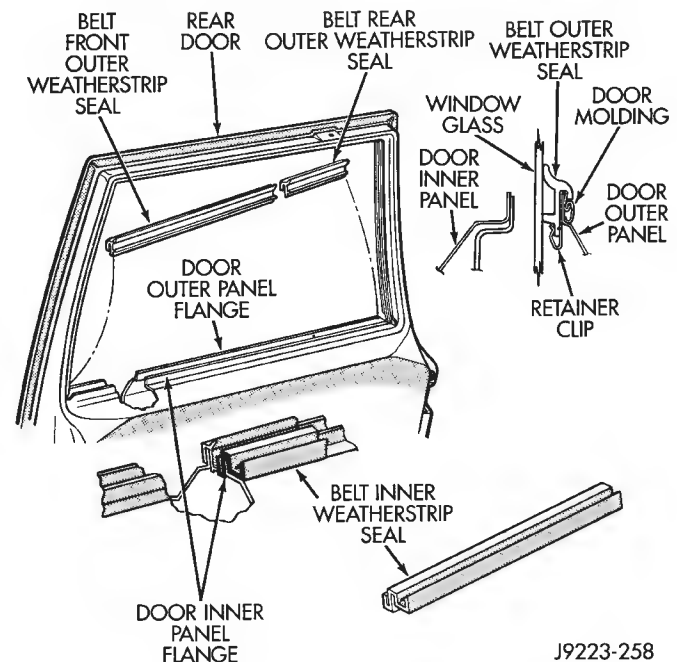
(4) Install the window glass channel/division bar screws and rivet. Tighten the screws to 6 N·m (5 ft-lbs) torque.

(5) Install the window glass channel and belt weatherstrip seals (Fig. 10 and 11).



J9223-259

**Fig. 10 Glass Channel Weatherstrip Seal**



J9223-258

**Fig. 11 Belt Weatherstrip Seals**

(6) Install the window beltline molding.

(7) Install the door waterdam and trim panel.

## REAR DOOR STATIONARY WINDOW GLASS—XJ

### REMOVAL

(1) Lower the window glass.

(2) Pry the window beltline molding away from the clips and remove the molding from the door.



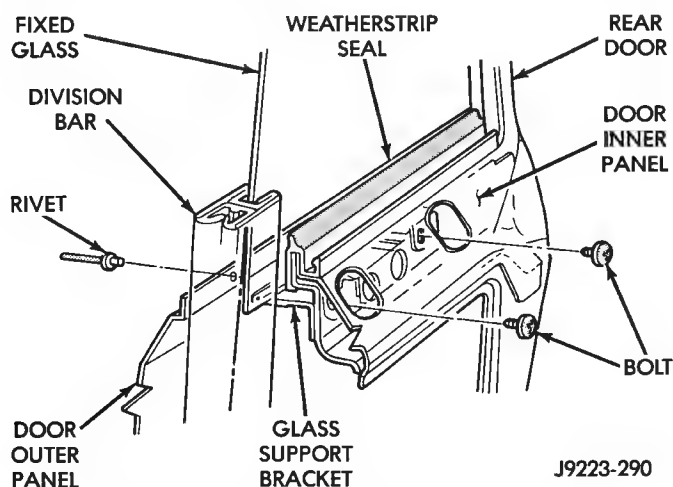
(3) Remove the window weatherstrip seals from the door.

(4) Remove the trim panel and waterdam from door inner panel.

(5) Remove the channel/division bar screws. Drill out the rivet head to remove it from the inner panel.

(6) Tilt the channel/division bar forward and remove it from the door.

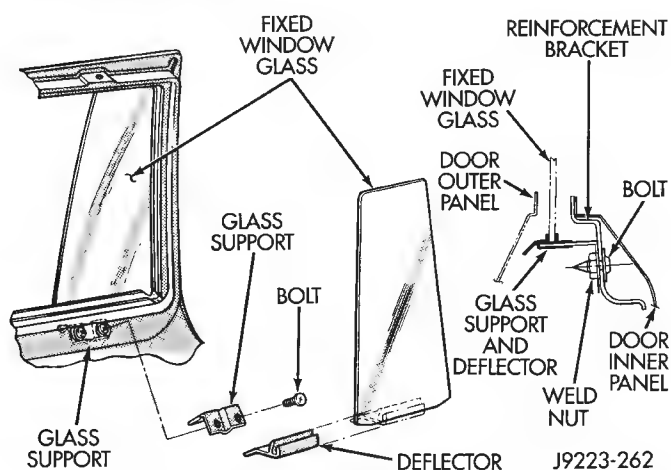
(7) Remove the fixed glass support bracket bolts from the door inner panel reinforcement bracket (Fig. 12).



**Fig. 12 Fixed Glass Support Bracket Bolts**

(8) Remove the fixed glass from the door (Fig. 13).

## INSTALLATION



**Fig. 13 Fixed Glass Removal/Installation**

(1) Install the fixed glass in the door, and install the bolts in the reinforcement and support brackets.

(2) Tighten the bracket retaining bolts to 9 N·m (79 in-lbs) torque.

(3) Install the channel/division bar in the door.

(4) Install the channel/division bar screws and rivet. Tighten the screws to 6 N·m (5 ft-lbs) torque.

(5) Install the channel and belt weatherstrip seals.

(6) Install the beltline molding.

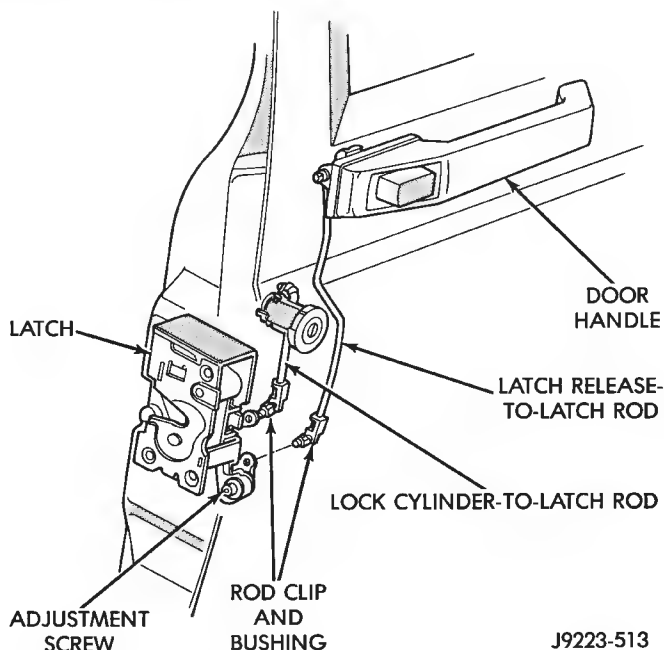
(7) Install the door waterdam and trim panel.

## DOOR KEY LOCK CYLINDER—XJ

### REMOVAL

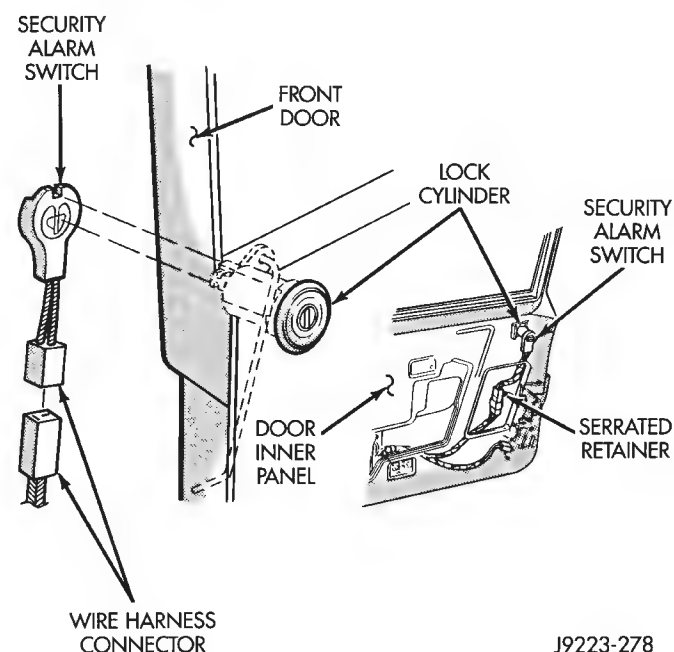
(1) Remove the door trim panel and waterdam.

(2) Disconnect the door latch-to-lock cylinder rod at the door latch (Fig. 14).



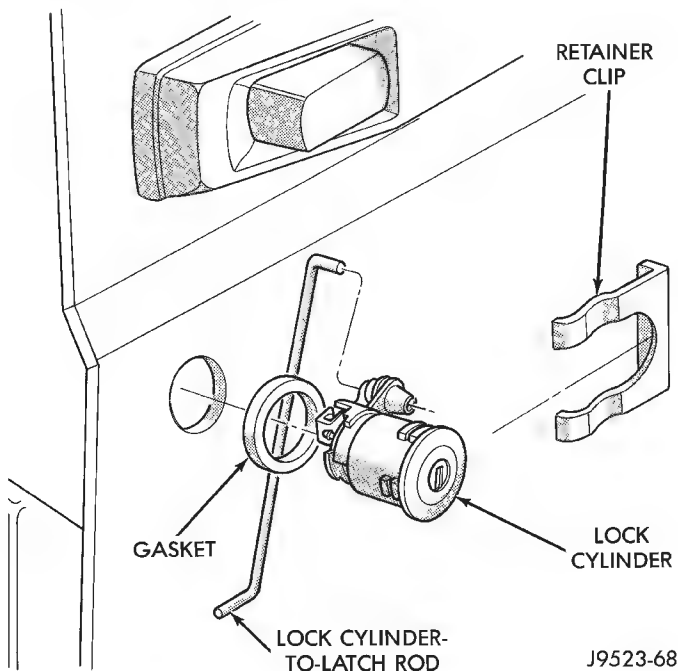
**Fig. 14 Key Lock Cylinder and Door Latch**

(3) If equipped, disconnect the security alarm switch connector from the lock cylinder (Fig. 15).



**Fig. 15 Security Alarm Switch**

(4) Remove the key lock cylinder retainer dip. Remove the lock cylinder, gasket and clip from the door opening (Fig. 16).



**Fig. 16 Key Lock Cylinder Removal/Installation**

(5) If applicable, remove the door latch-to-lock cylinder rod from the original lock cylinder. Connect it to the replacement lock cylinder.

#### INSTALLATION

(1) Position the lock cylinder and gasket in the door opening. Hold the lock cylinder in the opening with the retainer dip.

(2) Connect the door latch-to-lock cylinder rod to the door latch.

(3) If equipped, connect the security alarm switch connector to the lock cylinder.

(4) Test and, if necessary, adjust the door latch-to-lock cylinder rod operation.

(5) Install the door trim panel and waterdam.

(6) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

#### DOOR LATCH ADJUSTMENT—XJ

(1) Remove the access hole plug from the latch face (Fig. 17).

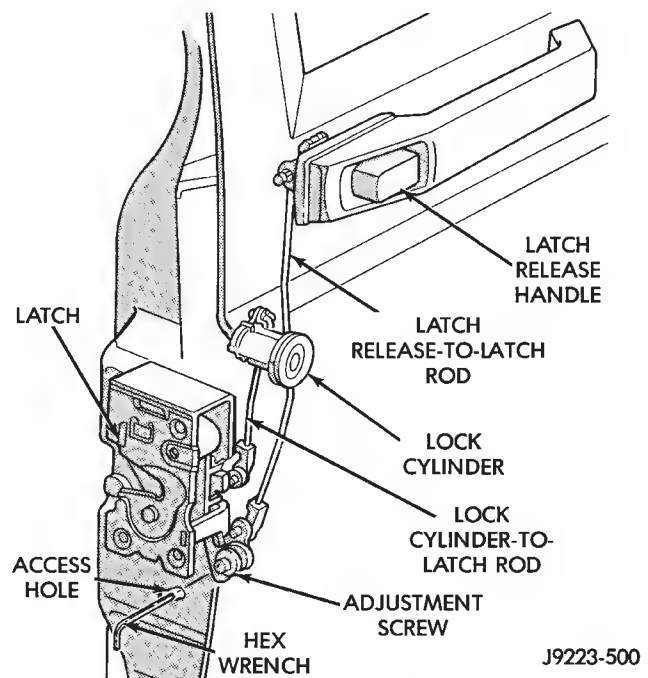
(2) Insert a 5/32-inch wrench through the hole and into the latch release lever adjustment screw and loosen.

(3) Press and release the outside door handle latch release button several times.

(4) Release the button and tighten adjustment screw to 3 N·m (30 in-lbs) torque.

(5) Test the release handle button and key lock cylinder for proper latch release.

(6) Install the door waterdam and trim panel.



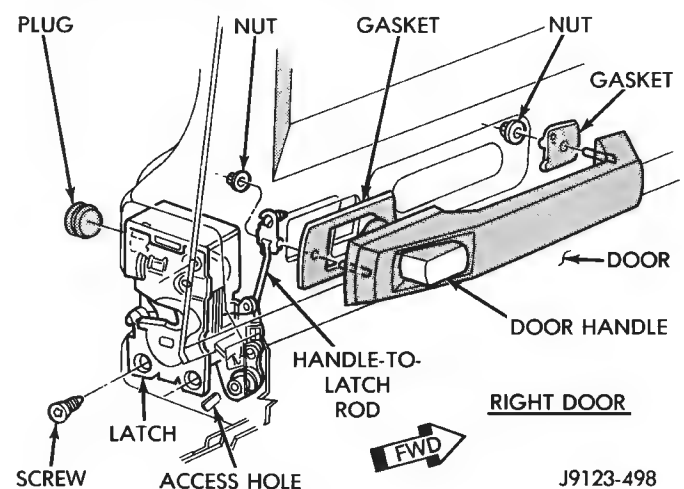
**Fig. 17 Door Latch Adjustment**

#### DOOR EXTERNAL HANDLE—XJ

##### REMOVAL

(1) Remove the door trim panel and waterdam.

(2) Remove the access hole cover and remove the door handle nuts (Fig. 18).



**Fig. 18 Door External Handle Removal/Installation**

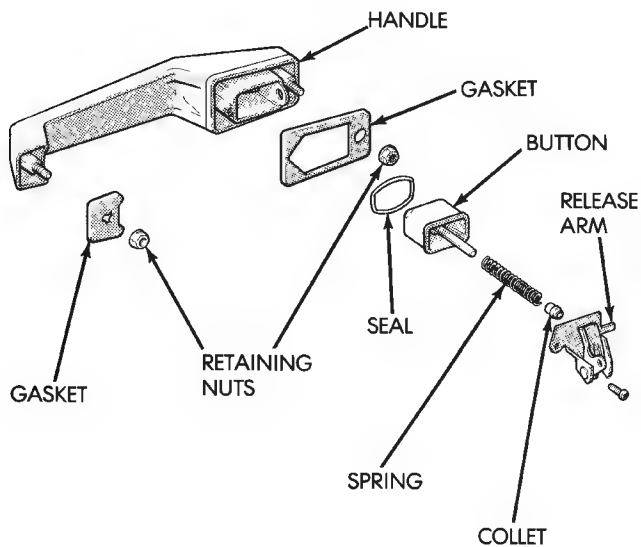
(3) Disconnect the handle-to-latch rod from the handle latch release lever arm.

(4) Remove the nuts and handle from the door.

(5) Remove the gaskets from the door outer panel surface, if necessary.

##### INSTALLATION

(1) Assemble the replacement door handle, if necessary (Fig. 19). Apply silicone spray lubricant to the components.



J8923-42

**Fig. 19 Door Handle Components**

(2) If the original gaskets were removed, position the replacement gaskets on the handle. Position the handle on the door outer panel.

(3) Install and tighten the handle nuts.

(4) Connect the latch-to-handle rod to the handle latch release lever arm.

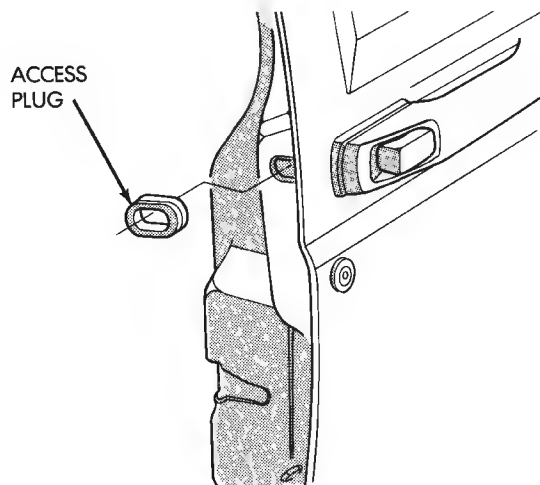
(5) Install the door waterdam and trim panel.

(6) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

## DOOR LATCH—XJ

### REMOVAL

(1) Remove the access plug located at the upper end of the door (Fig. 20).



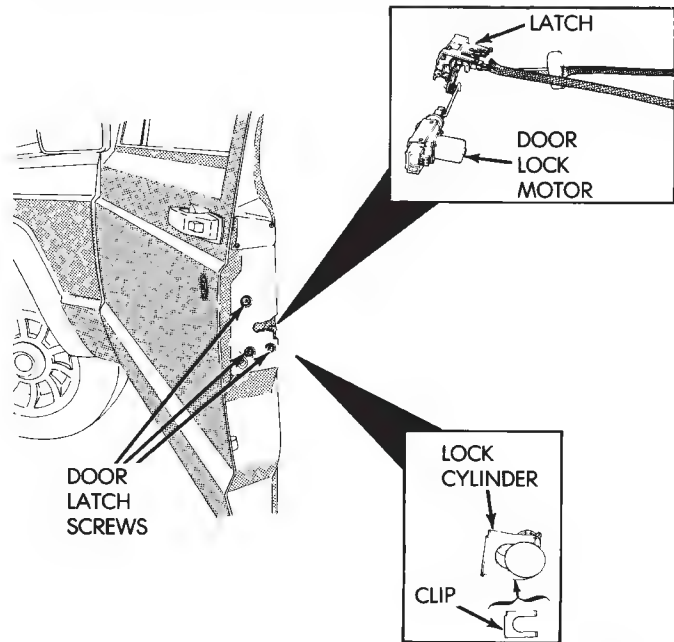
J8923-45

**Fig. 20 Access Plug**

(2) Remove the door trim panel and waterdam.

(3) Remove the door external handle from the door outer panel.

(4) Remove the door latch screws (Fig. 21).

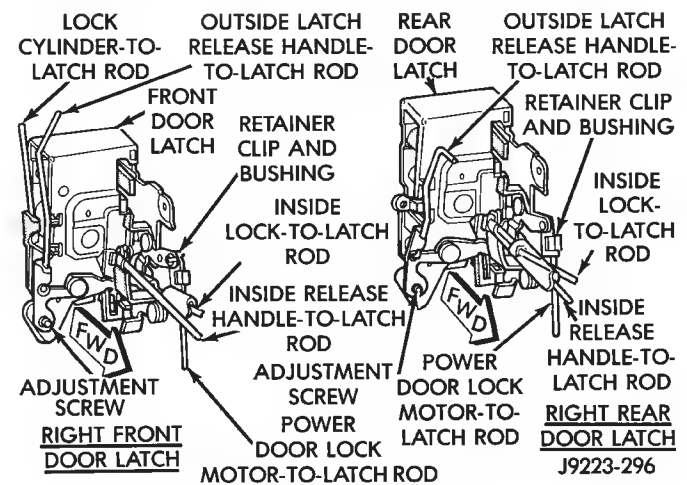


J8923-43

**Fig. 21 Door Latch Retaining Screws**

(5) Remove the retainer dip and key lock cylinder from the door outer panel.

(6) Disconnect all the rods from the door latch (Fig. 22).



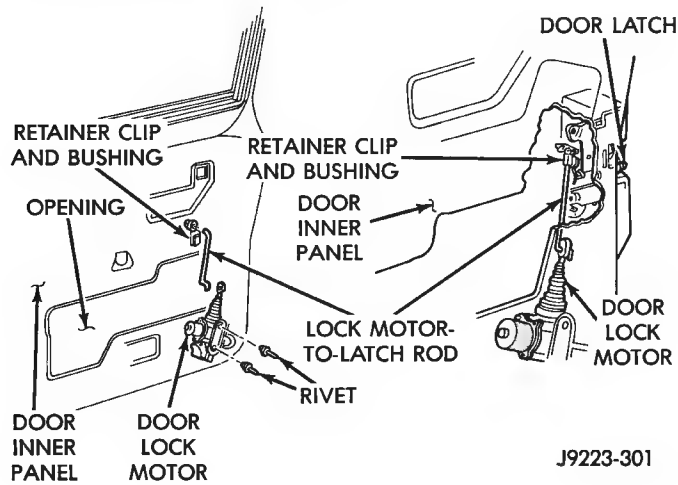
J9223-296

**Fig. 22 Door Latches**



(7) Remove the door latch from the door face.

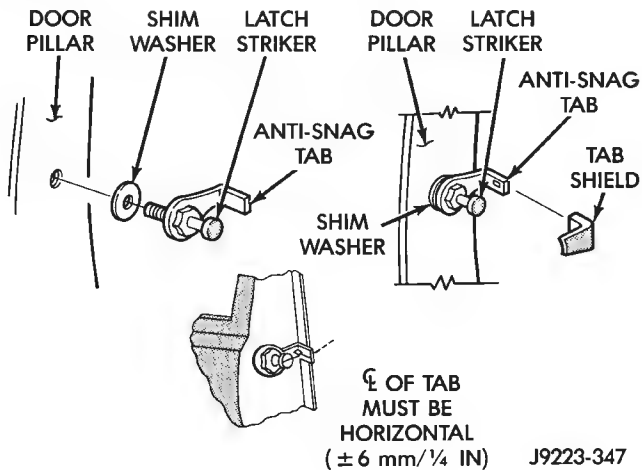
(8) For vehicles equipped with power door locks, remove the lock motor rivets. Remove the motor and latch as a unit from the door. Detach the rod and motor from the latch (Fig. 23).



**Fig. 23 Door Lock Motor**

#### INSTALLATION

(1) If necessary, install a replacement latch striker (Fig. 24).



**Fig. 24 Door Latch Striker Removal/Installation**

(2) For vehicles equipped with power door locks, attach the rod and lock motor to the latch. Attach the lock motor to the door panel with either rivets or with bolts and nuts (Fig. 23).

(3) Install the door latch at the door face and connect all the rods to the latch.

(4) Install the latch screws. Tighten the screws to 9 N·m (77 in-lbs) torque.

(5) Install the external handle.

(6) Install the latch-to-door handle rod.

(7) Install the key lock cylinder and retainer dip.

(8) Install the door waterdam and trim panel.

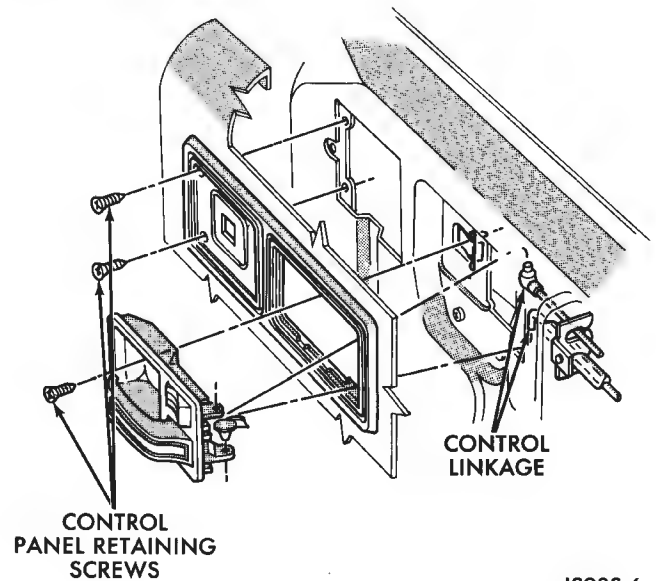
(9) Install the door access plug.

(10) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.

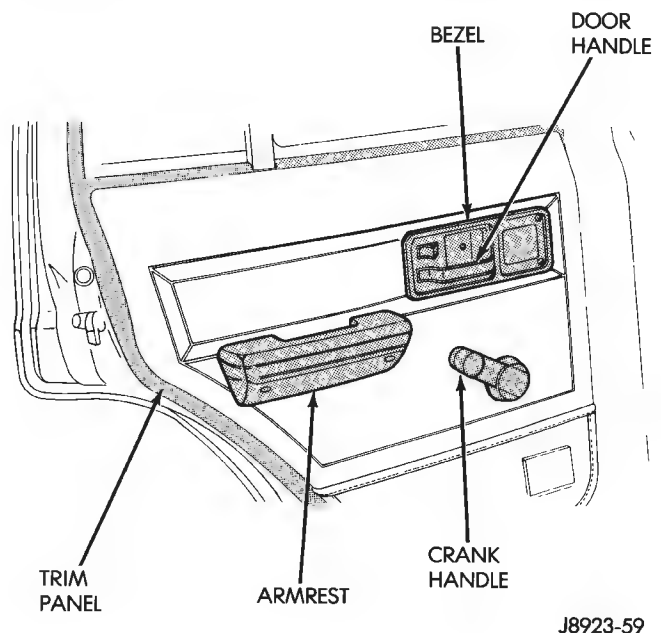
#### DOOR INSIDE LATCH RELEASE AND LOCK RODS—XJ

##### REMOVAL

(1) Remove the door inside latch release handle screws (Fig. 1 and 2).

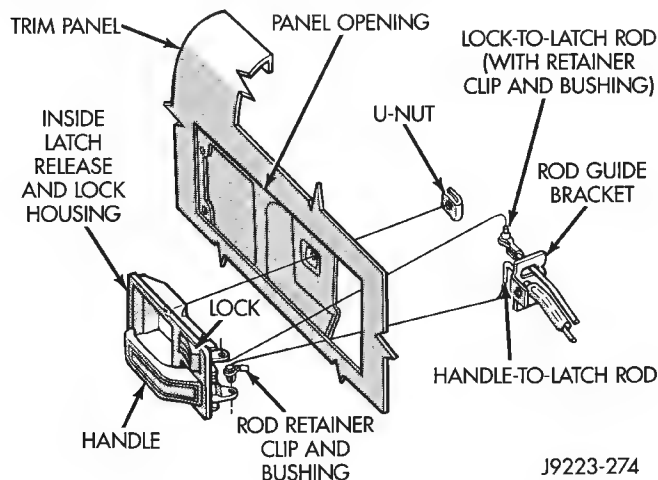


**Fig. 1 Front Door Inside Latch Release Handle**

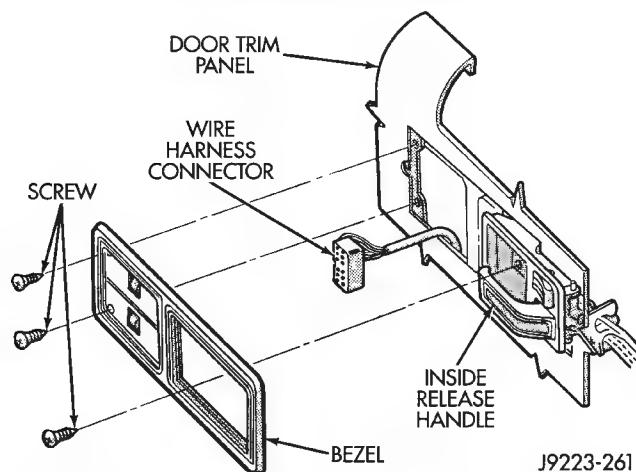


**Fig. 2 Rear Door Inside Latch Release Handle**

(2) Move the door release handle outward and disconnect the handle-to-latch rods (Fig. 3). For vehicles equipped with power door locks/windows, also disconnect the wire harness connector (Fig. 4).



**Fig. 3 Door Inside Latch Release Rods**



**Fig. 4 Power Switch Wire Harness Connector 16**

(3) Remove the door trim panel and waterdam.

(4) Drill-out the rivet heads and remove the rod guide bracket rivets from the door inner panel (Fig. 5 and 6).

(5) Remove the rod guide brackets and rods from the door.

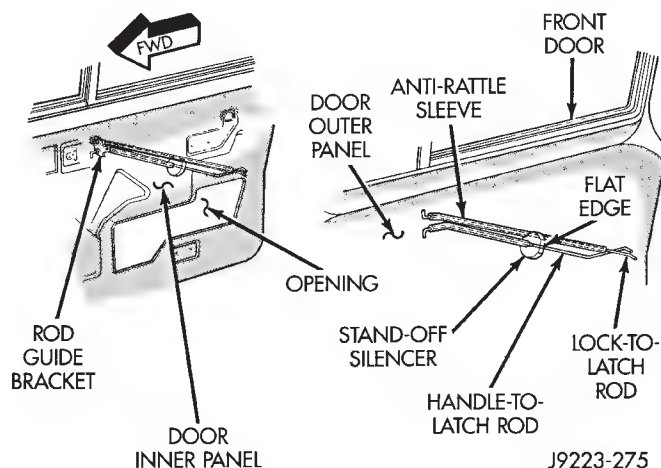
## INSTALLATION

(1) Position the rod guide brackets and rods in the door.

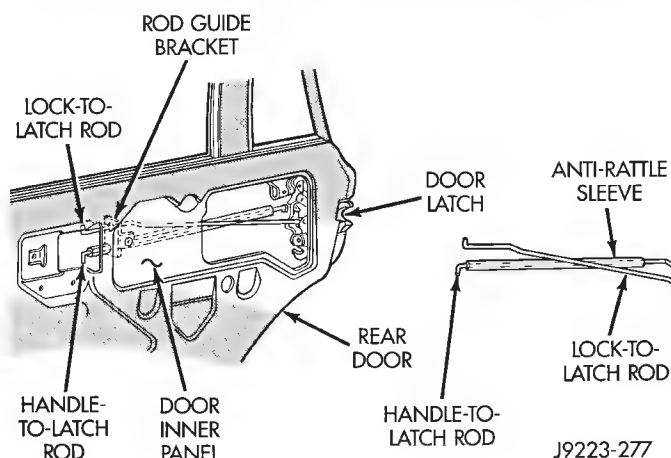
(2) Install rod the guide bracket rivets in the door inner panel (Fig. 7).

(3) Install the door trim panel and waterdam.

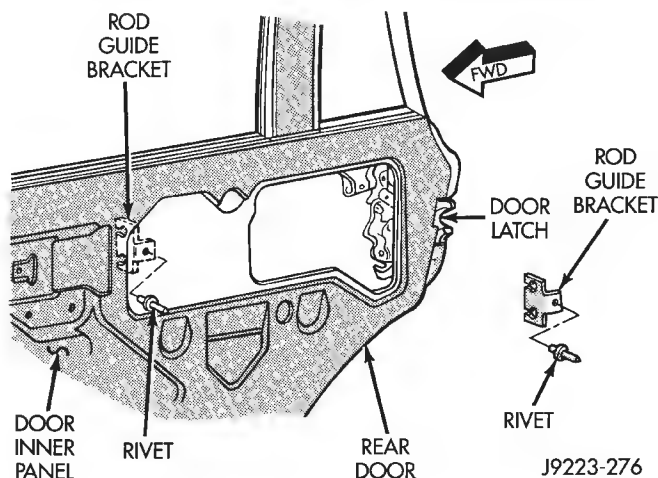
(4) Adjust the door latch as described in DOOR LATCH ADJUSTMENT.



**Fig. 5 Front Door Rod Guide Bracket and Rods**



**Fig. 6 Rear Door Rod Guide Bracket and Rods**

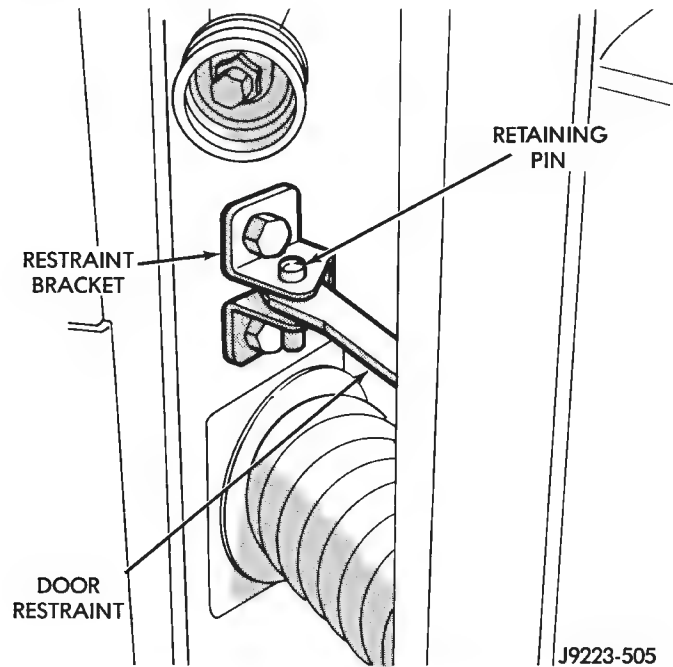


**Fig. 7 Rod Guide Bracket Installation**

## DOOR HINGE/HINGE PIN REPLACEMENT—XJ

**REMOVAL**

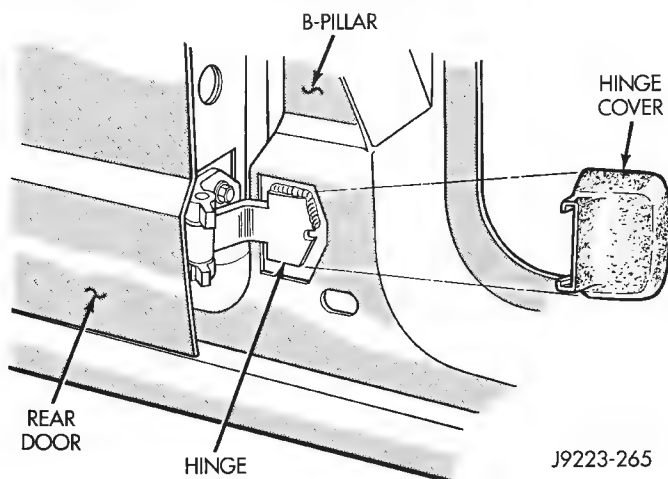
(1) Remove the door restraint (check) retaining pin (Fig. 8) with a punch.



**Fig. 8 Door Restraint (Check) Retaining Pin**

(2) Front door: open the door wide for access and remove the door hinge pin and bushing with a punch.

(3) Rear door: with the door closed, remove the door hinge pin and bushing with a punch (Fig. 9).

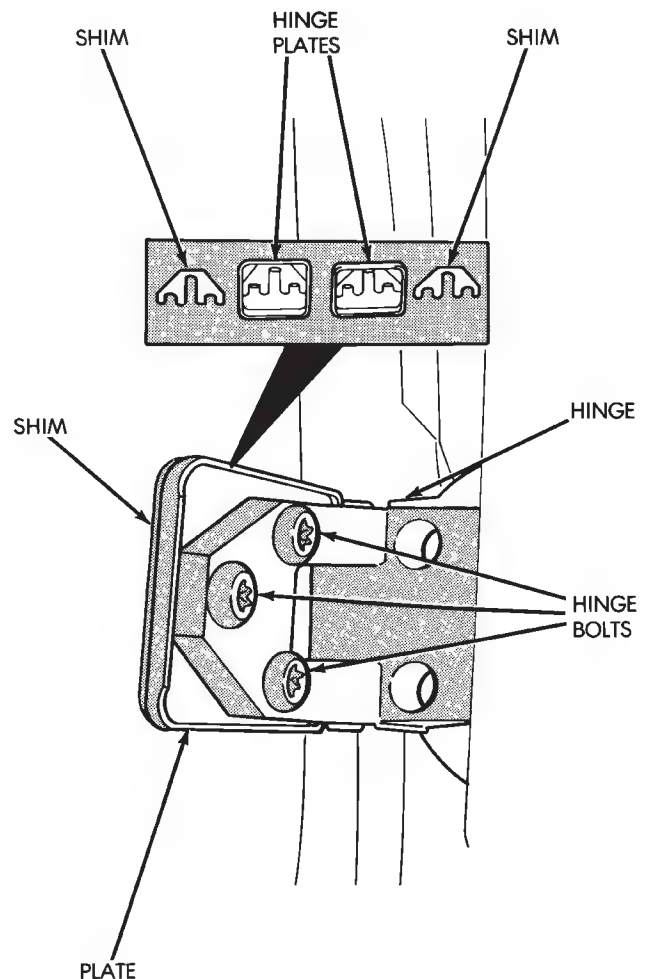


**Fig. 9 Rear Door Hinge**

(4) Remove the door hinge bolts, plates and shims (Fig. 10).

(5) Retain the door hinge plates and shims for correct installation.

(6) Separate the hinge halves.



**Fig. 10 Door Hinges, Bolts, Plates and Shims**

**INSTALLATION**

(1) Position the hinge plates, shims and replacement hinge-half on the door face.

(2) Align the door hinges, plates and shims with bolt holes and install hinge bolts (Fig. 10).

(3) Insert a bushing in both body hinge halves from the bottom (Fig. 11).

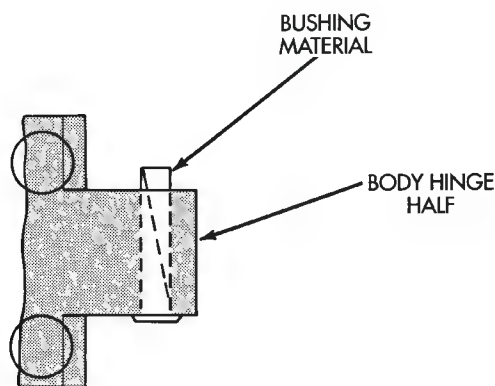
(4) Allow the bushing material to stick out of the top of the hinge. Use the round end of a ball-peen hammer, lightly tap the bushing material to begin to roll it outward (Fig. 12).

(5) When the entire edge of the bushing is rolled outward, turn the hammer over and lightly tap the bushing material to form a flat head (Fig. 13). The head must be flat without overlapping or distorting the bushing material.

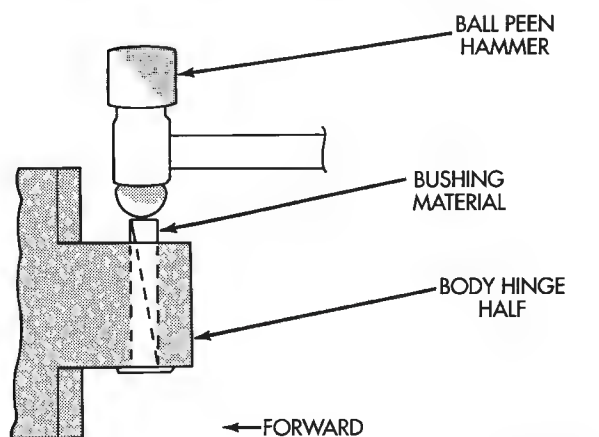
(6) Slide the door half of the upper and lower hinges onto the body half of both hinges and align the hinge pin holes.

(7) Carefully start the hinge pins through the hinges (they will fit snugly) and then use a two pound hammer, carefully seat both hinge pins (Fig.

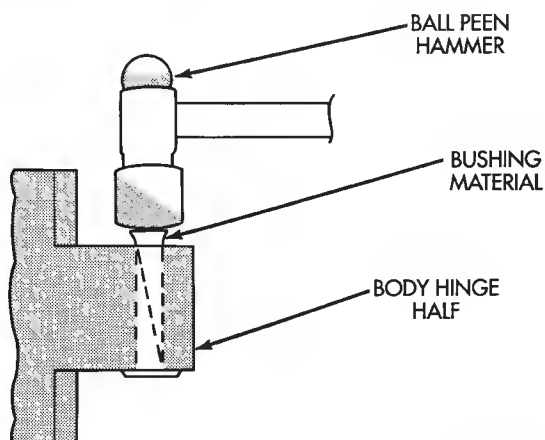




J9423-120

**Fig. 11 Install Bushing In Hinge**

J9423-122X

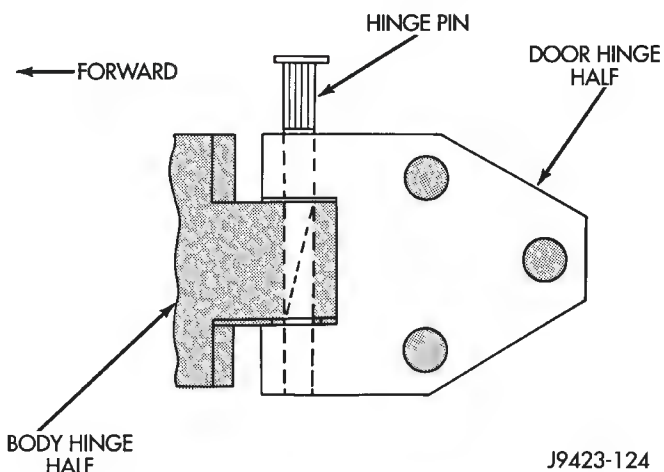
**Fig. 12 Begin To Roll Bushing Material Outward**

J9423-123

**Fig. 13 Forming A Head On The Bushing**

14). Be careful not to bend the hinge when driving the hinge pin, support may be required under the hinge.

(8) Adjust/align latch striker and latch as necessary.



J9423-124

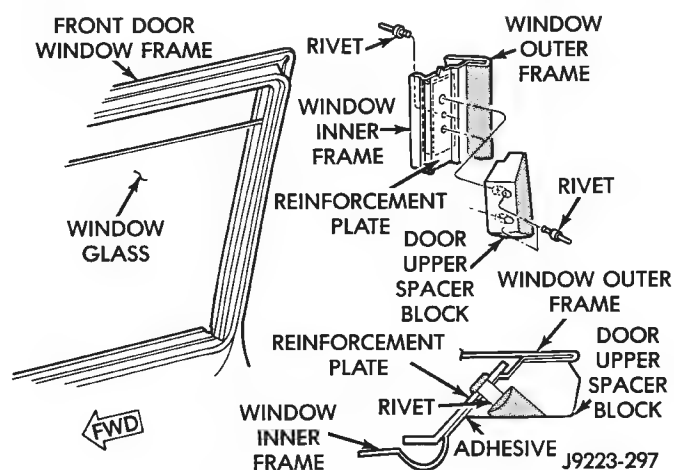
**Fig. 14 Installing The Hinge Pin**

(9) Install the door restraint (check) retaining pin with a punch.

## FRONT DOOR SPACER BLOCKS—TWO-DOOR VEHICLES

### REMOVAL

(1) Upper spacer block: drill-out the rivet heads and remove them from the reinforcement plate (Fig. 1).

**Fig. 1 Front Door Upper Spacer Block—Two-Door Vehicles**

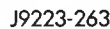
(2) Lower spacer block: remove the screws from the door face (Fig. 2).

(3) As applicable, remove the spacer block from the door window frame or door face.

### INSTALLATION

(1) As applicable, position the spacer block on the door window frame or door face.

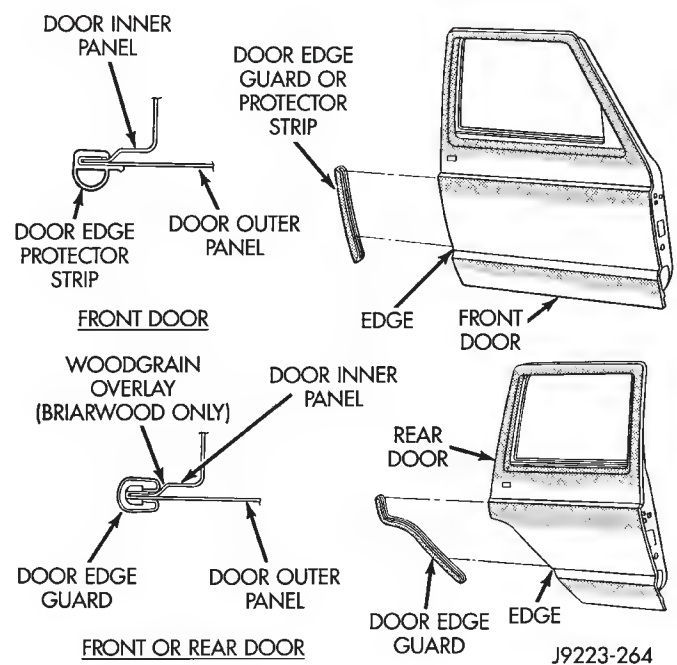
(2) Upper spacer block: Install the replacement rivets in the spacer block and reinforcement plate.



(3) Lower spacer block: install the screws in the door face. Tighten the screws to 1 N·m (11 in-lbs) torque.

## REPLACEMENT

- (1) Pull outward and remove the door edge guard strip from the door edge (Fig. 3).
- (2) Position the door edge guard strip on the door edge.
- (3) Force the door edge guard strip inward until it is seated on the door edge.

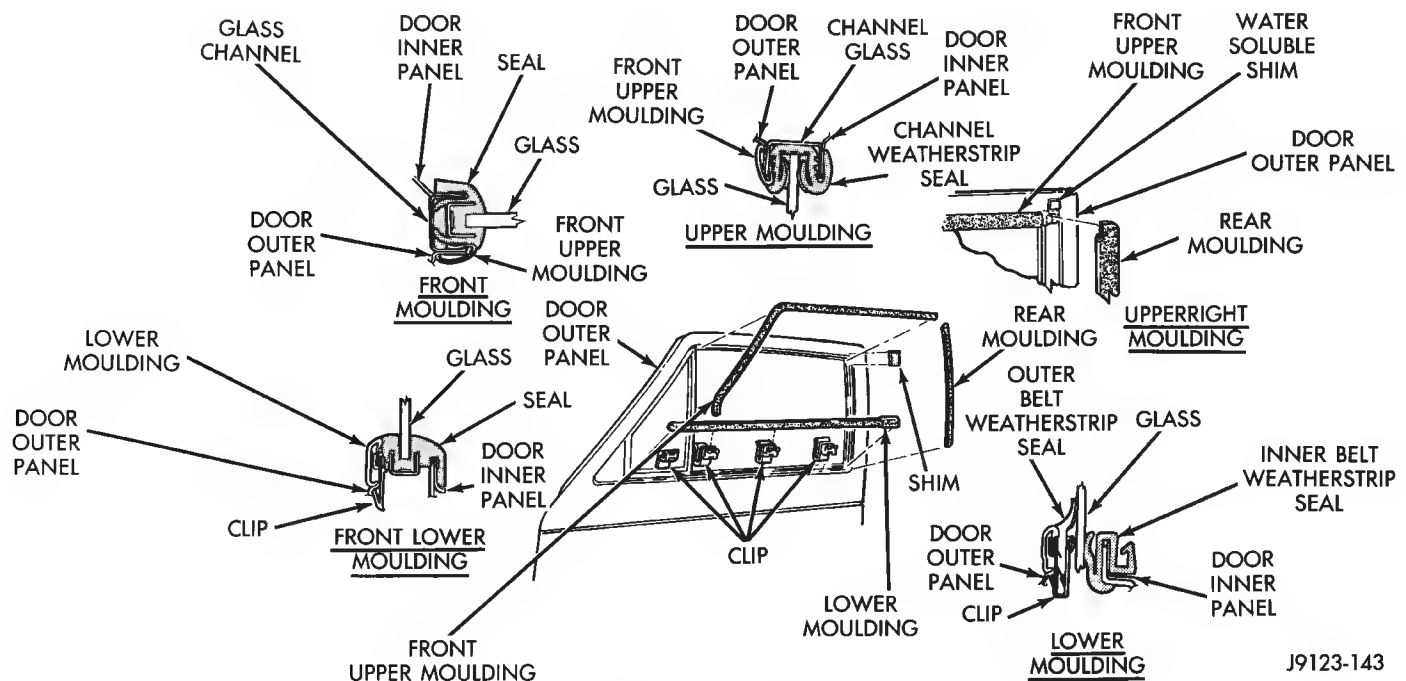


**Fig. 3 Door Edge Guard/Protector Strip**

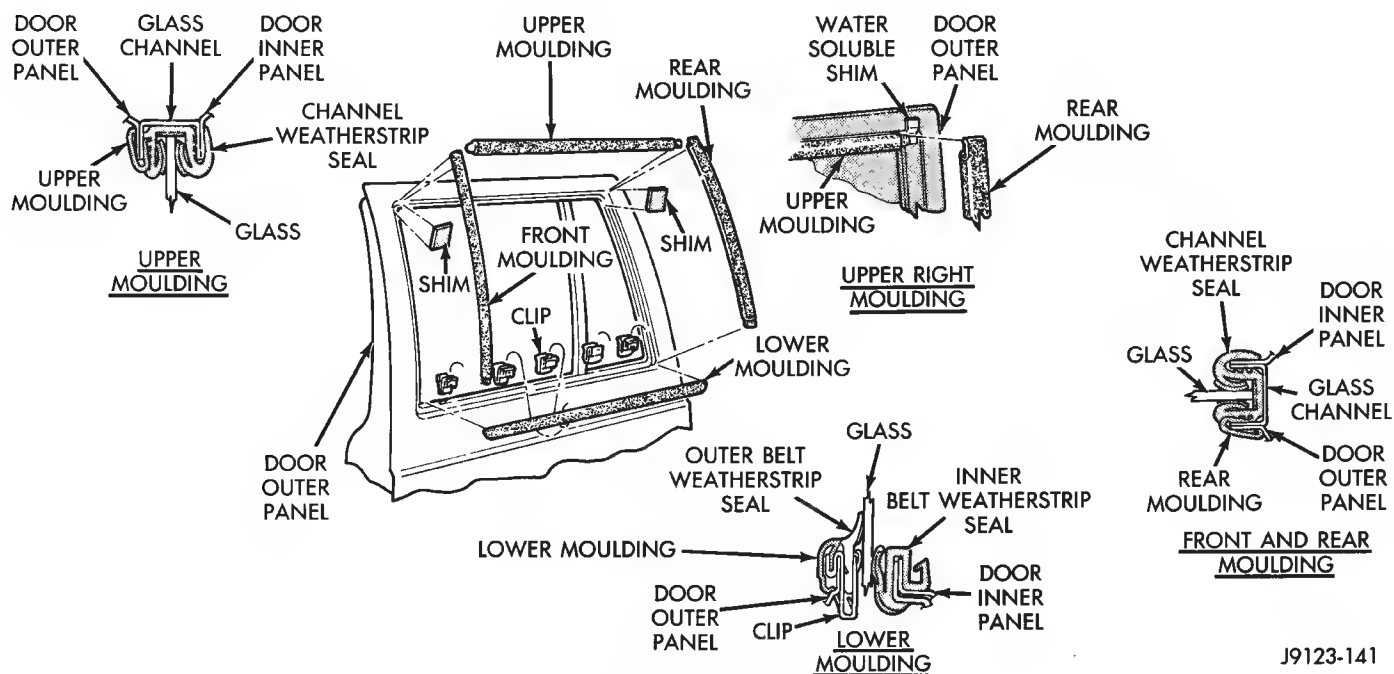
**DOOR WINDOW EXTERIOR MOLDINGS—XJ**

## REMOVAL

- (1) When removing the front or rear door window exterior molding, open the window completely (Fig. 4 and 5).
- (2) Pry and pull the molding sections from the door panel flange and clips.



**Fig. 4 Front Door Window Exterior Molding**



J9123-141

**Fig. 5 Rear Door Window Exterior Molding**

### INSTALLATION

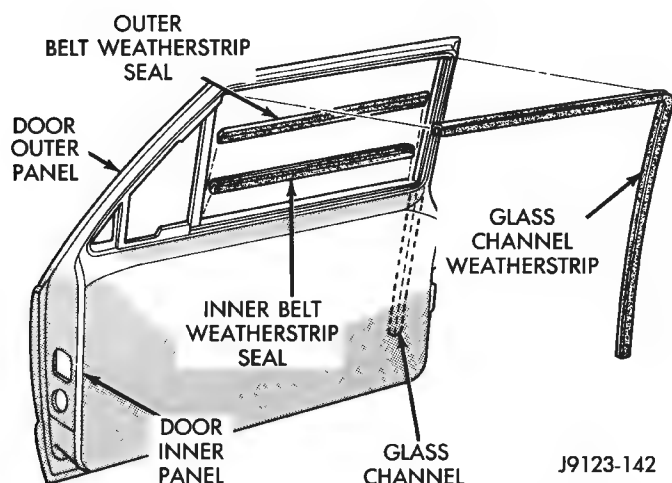
- (1) When installing window moldings, start at the forward end of the upper molding.
- (2) Force the molding onto the door panel and continue rearward until it is completely seated on the flange.
- (3) Mate the rear molding with the upper molding and force the molding edge inward.
- (4) Continue pressing and moving downward to complete the installation.
- (5) Position the lower molding on the clips and force it downward.

### DOOR WINDOW GLASS AND DOOR OPENING WEATHERSTRIP SEALS—XJ

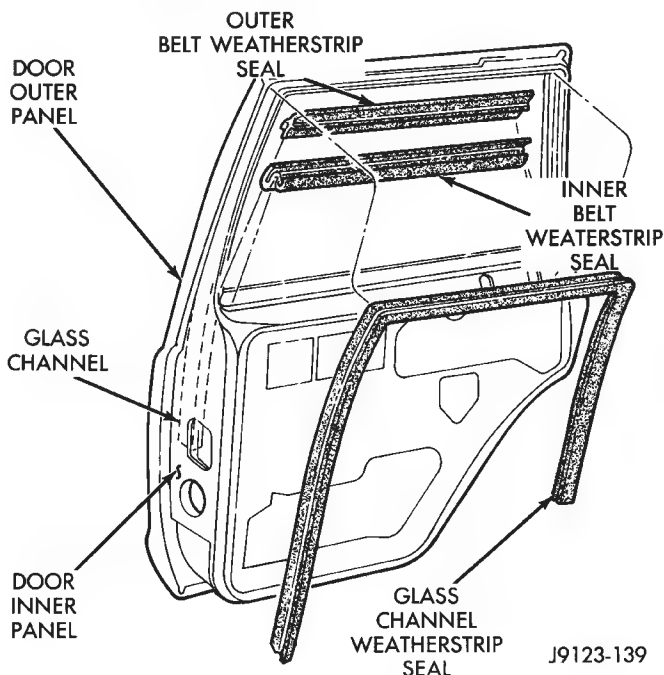
#### REMOVAL

When removing the front or rear door window glass weatherstrip seals, open the window.

The window weatherstrip seals (Fig. 6 and 7) can be removed by hand or with the aid of a small putty knife (or similar tool).



J9123-142



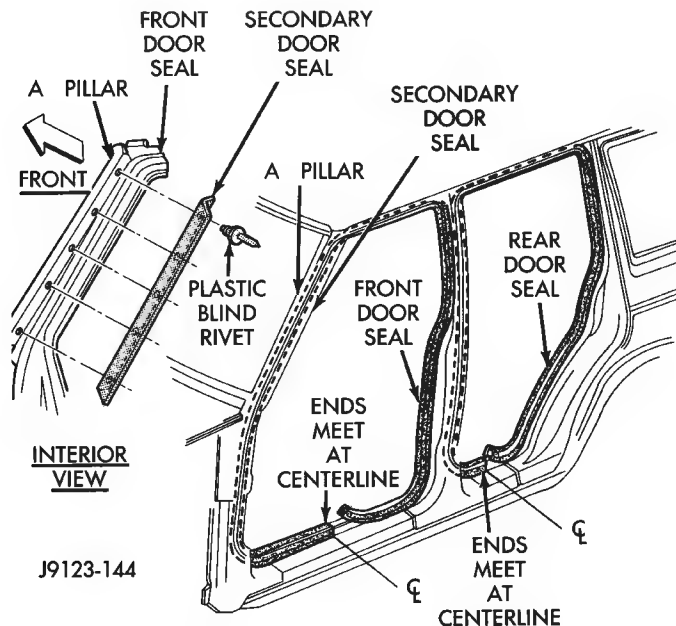
J9123-139

**Fig. 7 Rear Door Window Glass Weatherstrip Seals**

**Fig. 6 Front Door Window Glass Weatherstrip Seals**

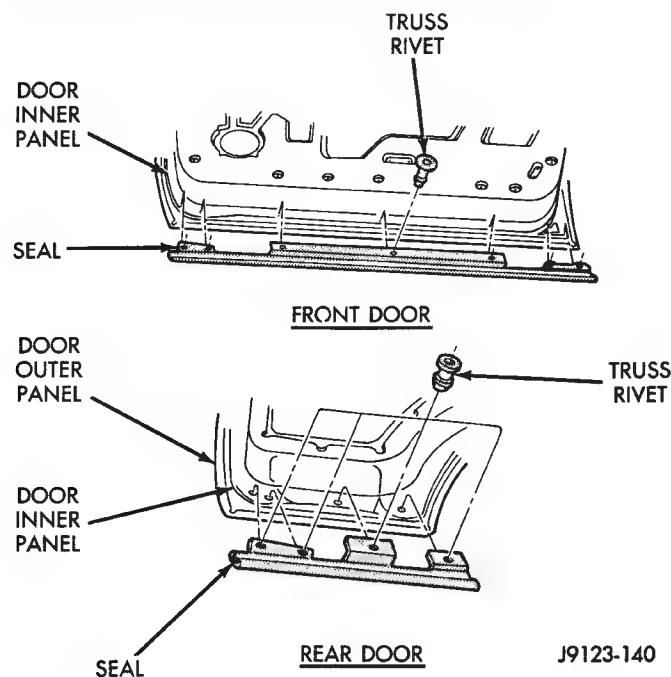


The door opening weatherstrip seal is attached to the periphery of the door opening in the body. The retaining push-studs can be removed with an appropriate pry tool. The front door secondary seal is attached to the A-pillar with plastic blind rivets (Fig. 8).



**Fig. 8 Door Opening Weatherstrip Seals**

The door-to-rocker panel seals are attached to the door inner panels with rivets (Fig. 9). The rivets can be removed with an appropriate pry tool.

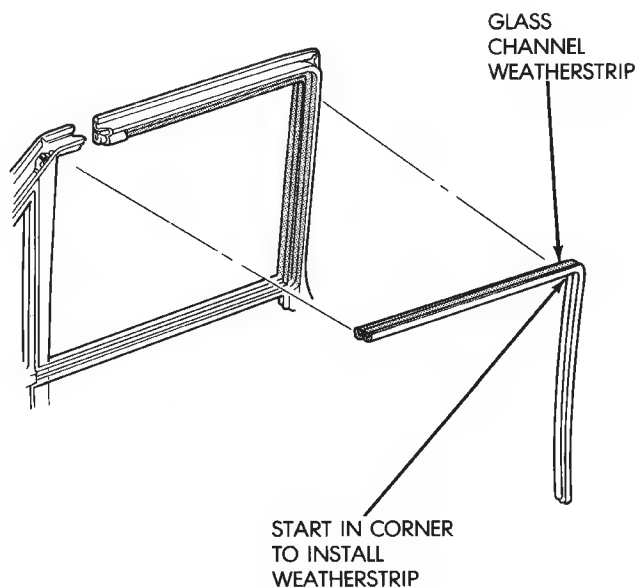


**Fig. 9 Door-To-Rocker Panel Seals**

## WINDOW GLASS WEATHERSTRIP SEAL INSTALLATION

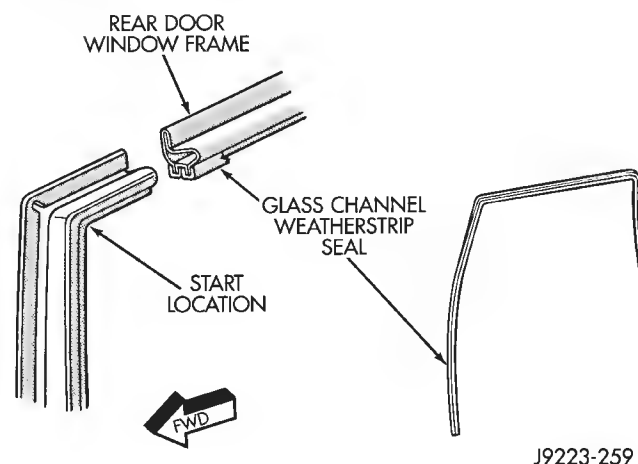
When installing front or rear door window glass weatherstrip seals, open the window completely.

(1) To install a front door window glass channel weatherstrip seal, start at the upper, rear corner (Fig. 10).



**Fig. 10 Front Door Window Glass Channel Weatherstrip Seal**

(2) To install a rear door window glass channel weatherstrip seal, start at the upper, front corner (Fig. 11).

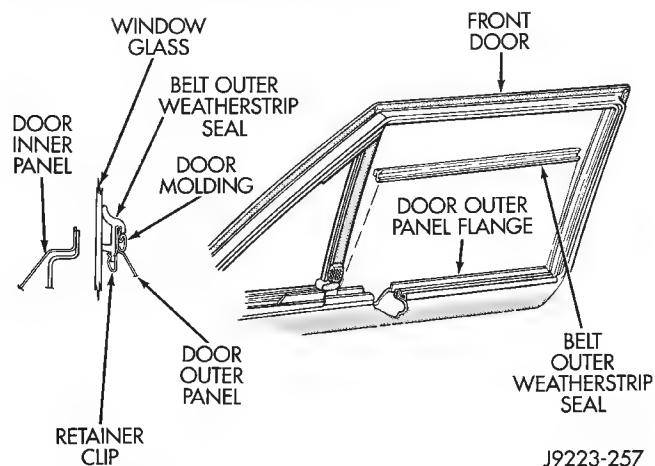


**Fig. 11 Rear Door Window Glass Channel Weatherstrip Seal**

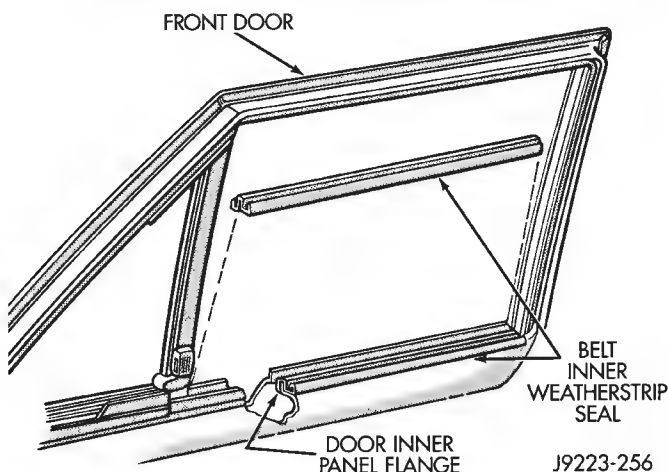
(3) A small amount of adhesive can be used to hold the weatherstrip seal in-place, if necessary.

(4) As applicable, move forward or rearward and downward evenly until the weatherstrip seal is fully seated in the channel.

(5) Position the belt weatherstrip seals at the window edge (Fig. 12, 13 and 14) and force them downward until seated on the flange.



**Fig. 12 Front Door Belt Outer Weatherstrip Seal**



**Fig. 13 Front Door Belt Inner Weatherstrip Seal**

#### **DOOR OPENING WEATHERSTRIP SEAL INSTALLATION**

The weatherstrip seal is attached to the flange around the perimeter of the door opening with adhesive and plastic push-studs.

(1) When installing a door opening weatherstrip seal, start at the door sill center line.

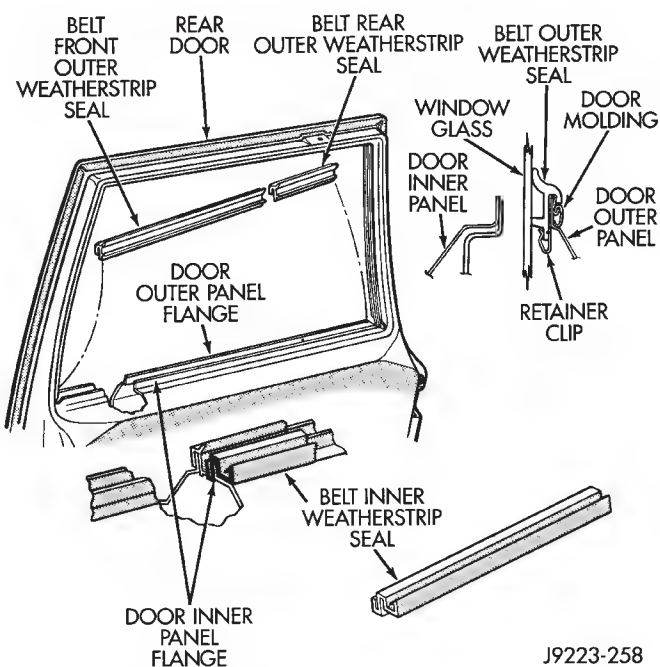
(2) Use adhesive along with the push-studs to aid in retaining a weatherstrip seal.

(3) Move upward and around the perimeter of the door opening and seat the weatherstrip seal on flange (Fig. 15).

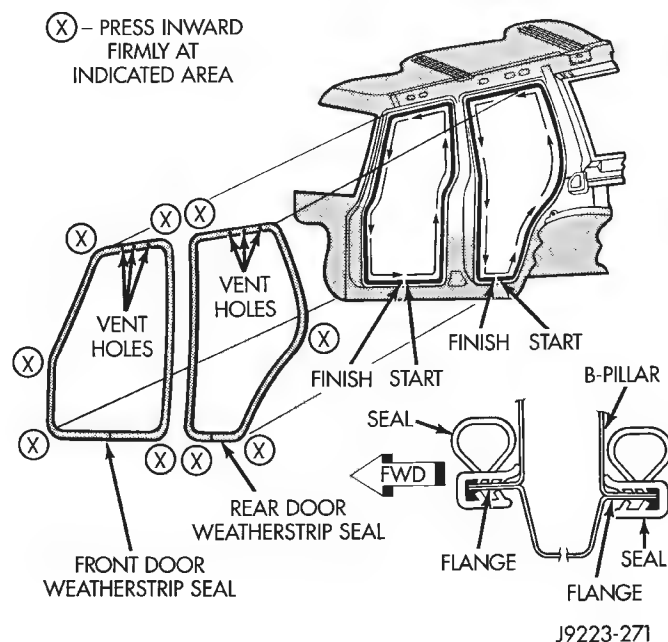
(4) Install the front door secondary seal with plastic blind rivets.

#### **DOOR-TO-ROCKER PANEL SEAL INSTALLATION**

(1) Position the seal on the door inner panel with the holes aligned.



**Fig. 14 Rear Door Belt Outer and Inner Weatherstrip Seal**



**Fig. 15 Door Opening Weatherstrip Seals**

(2) Attach the seal to the door inner panel with truss rivets.

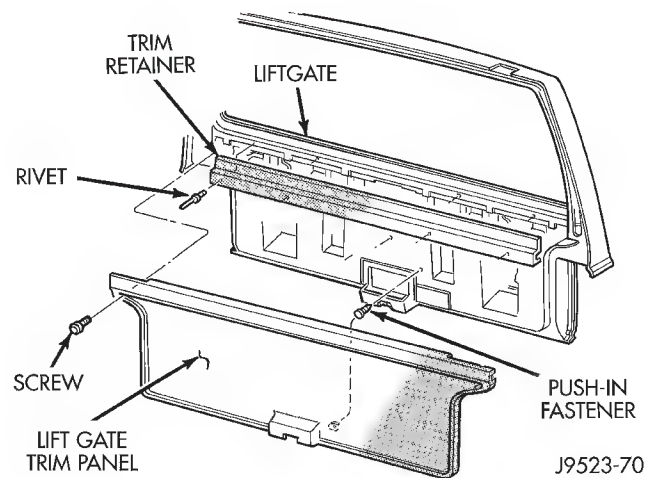
**LIFTGATE—XJ**

The liftgate components are illustrated in Figure 1.

**REMOVAL**

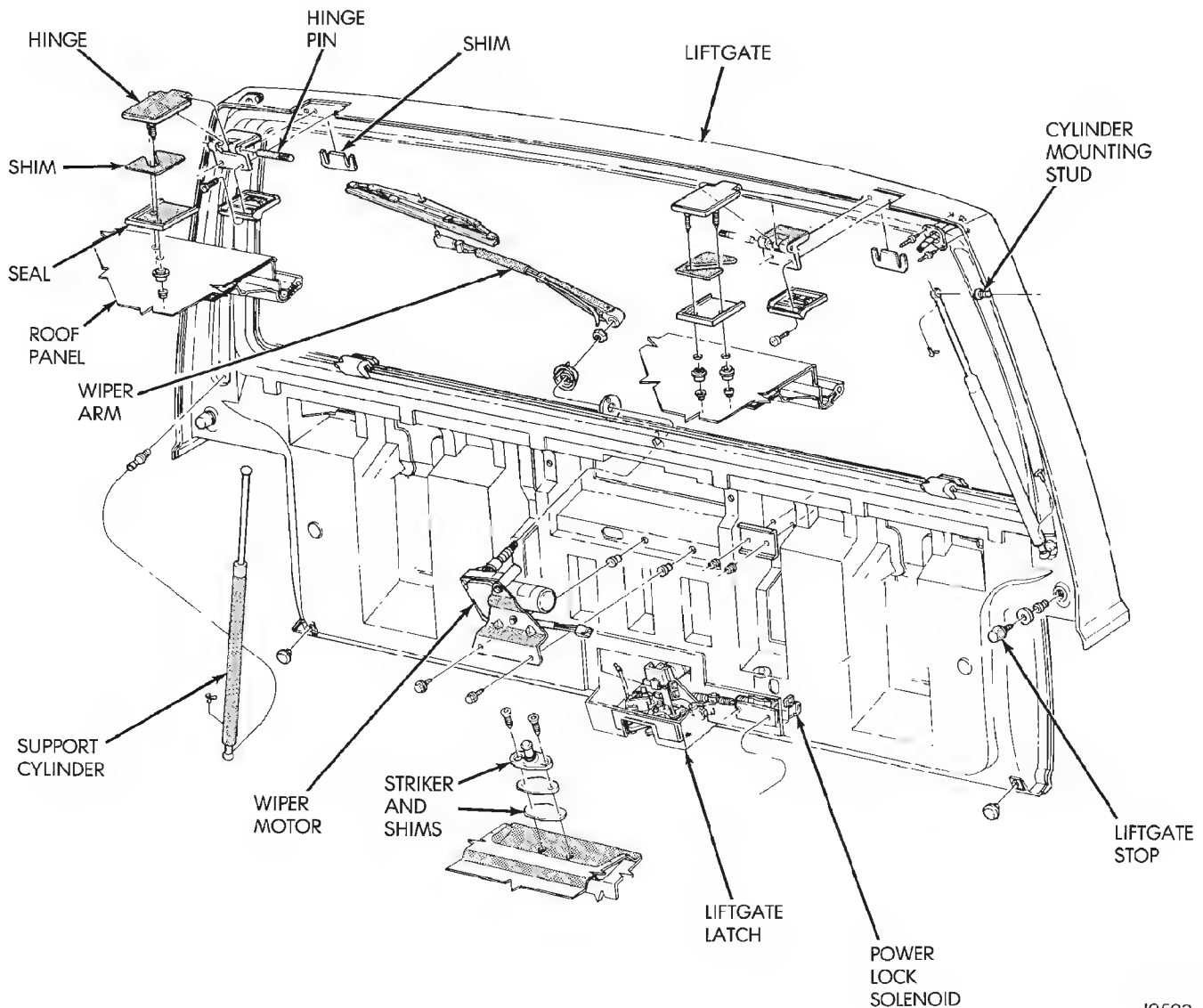
**WARNING: DO NOT DISCONNECT THE SUPPORT ROD CYLINDERS WITH THE LIFTGATE CLOSED. THE SUPPORT ROD PISTONS ARE OPERATED BY HIGH PRESSURE GAS. THIS COULD CAUSE DAMAGE AND/OR PERSONAL INJURY IF THEY ARE REMOVED WHILE PISTONS ARE COMPRESSED.**

- (1) Open the liftgate.
- (2) Remove the liftgate trim panel (Fig. 2).
- (3) Remove the retainer clips that secure the support rod cylinders to the ball studs (Fig. 3).
- (4) Remove the support rod cylinders from the ball studs.



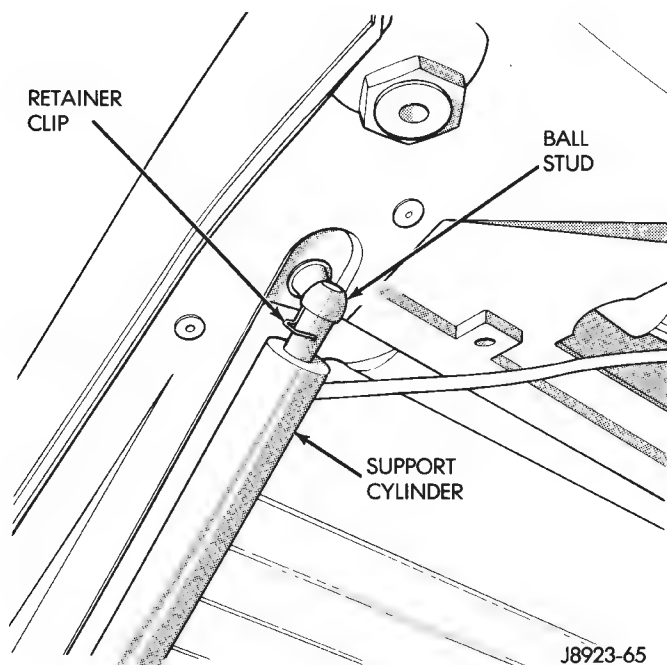
**Fig. 2 Liftgate Trim Panel**

- (5) Remove the screws and the wire harness trim cover from the liftgate header (Fig. 4).

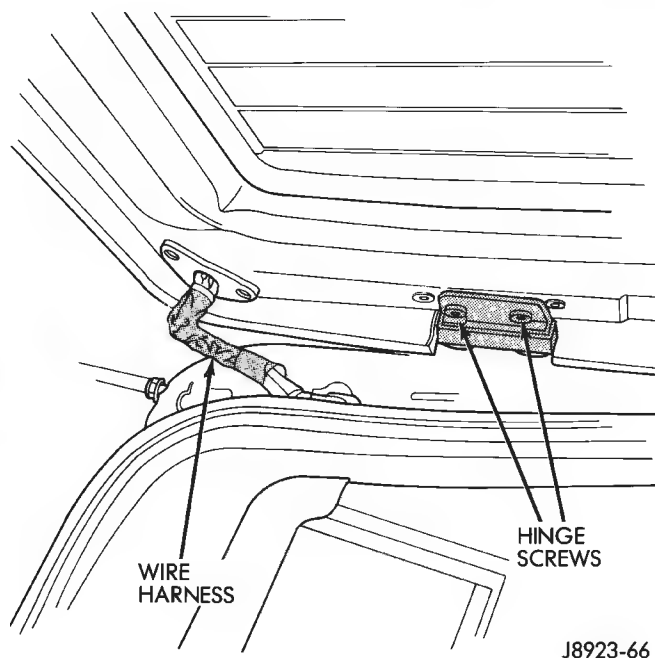


**Fig. 1 Liftgate Components**





**Fig. 3 Support Rod Retainer Clip**



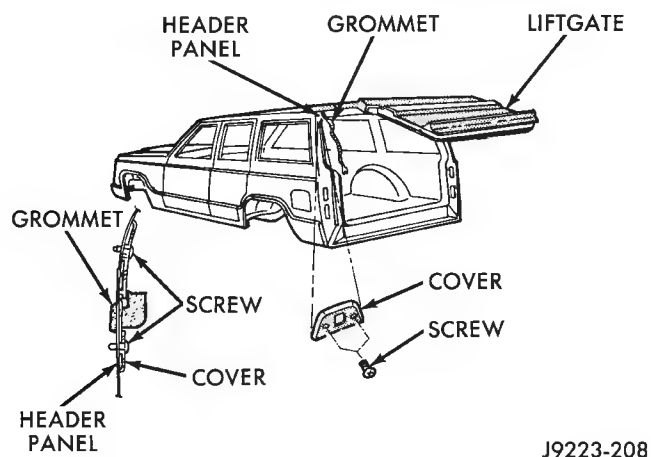
**Fig. 5 Liftgate Wire Harness and Hinge Screws**

(7) Install the trim panel.

## LIFTGATE TRIM PANEL—XJ

### REMOVAL

- (1) Remove the screws that attach the panel upper sides to the liftgate.
- (2) Use a trim stick to detach the panel retainers from the liftgate.
- (3) Remove the trim panel from the liftgate.
- (4) If necessary, drill-out the rivet heads and remove the trim panel strip from the liftgate (Fig. 6).

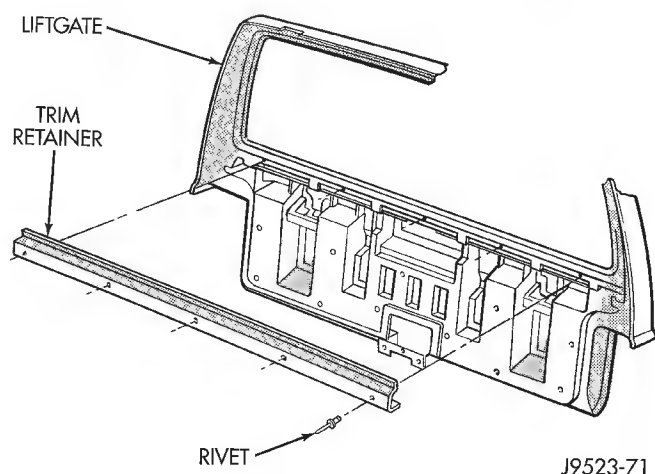


**Fig. 4 Liftgate Wire Harness Trim Cover**

- (6) Disconnect the connectors and remove the wire harness from the liftgate (Fig. 5).
- (7) Remove the hinge-to-liftgate screws.
- (8) Remove the liftgate from the vehicle.

### INSTALLATION

- (1) Position and support the liftgate at the opening in the body and install the hinge-to-liftgate screws.
- (2) Adjust the liftgate to fit properly in the body opening. Refer to Liftgate Adjustment.
- (3) Tighten the hinge-to-liftgate screws to 9 N·m (7 ft-lbs) torque.
- (4) Connect the liftgate rod cylinders to the ball studs and install the rod cylinder retainer clips.
- (5) Insert and connect the wire harness connectors.
- (6) Position the wire harness trim cover on the header and install the screws. Tighten the screws to 1 N·m (11 in-lbs) torque.



**Fig. 6 Liftgate Trim Panel Retainer**

### INSTALLATION

- (1) If removed, install the trim panel retainer strip on the liftgate with replacement rivets.
- (2) Position the trim panel on liftgate.

(3) Align the trim panel retainers with the holes in the liftgate inner panel and force the trim panel inward.

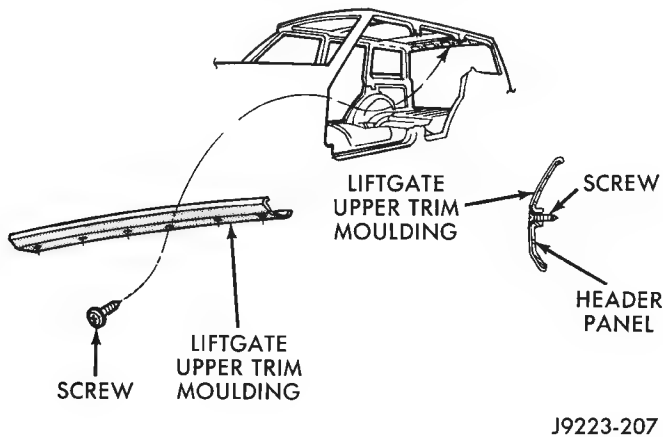
(4) Install the screws to attach the panel upper sides to the liftgate.

## LIFTGATE HINGE—XJ

### REMOVAL

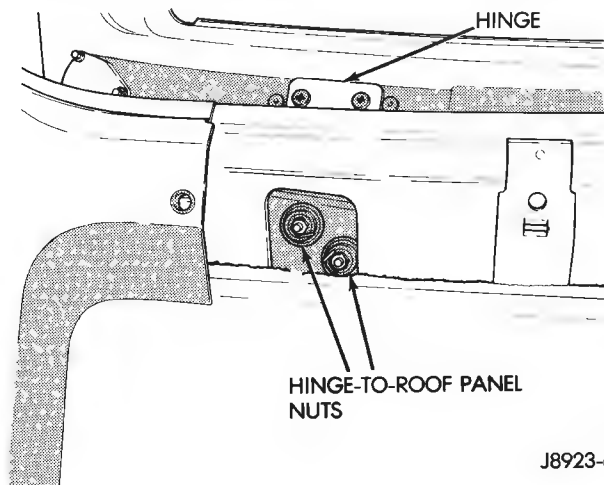
It is not necessary to remove the liftgate to replace one or both hinges.

(1) Remove the liftgate (headliner) upper trim molding (Fig. 7).



**Fig. 7 Liftgate Upper Trim Molding**

(2) Remove the hinge-to-roof panel nuts (Fig. 8).



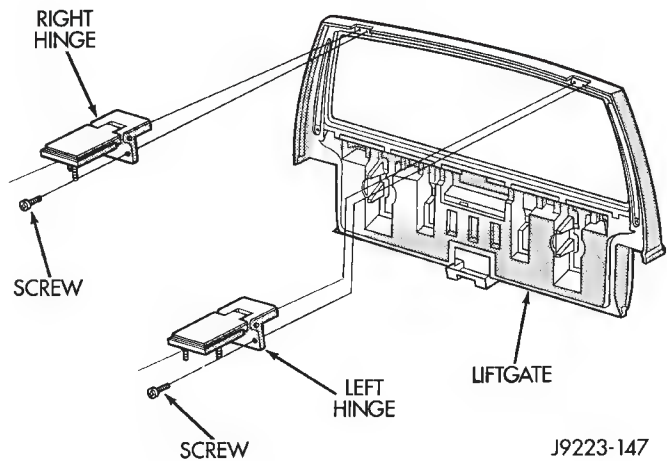
**Fig. 8 Liftgate Hinge-To-Roof Panel Nuts**

(3) Remove the hinge-to-liftgate screws and remove the hinge from the liftgate (Fig. 9).

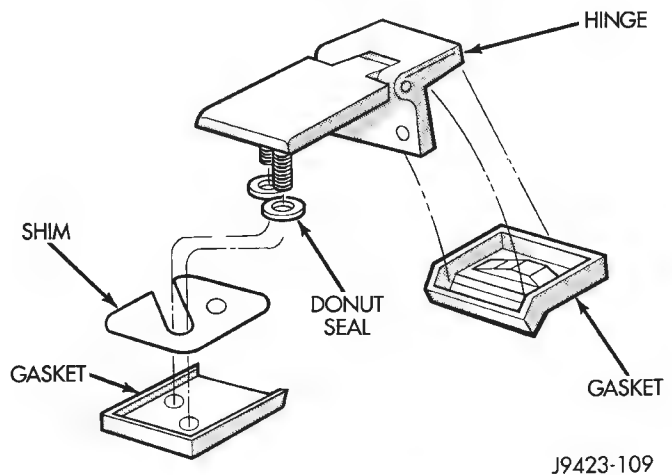
### INSTALLATION

(1) Position the gaskets, shim and hinge on the liftgate and the roof panel (Fig. 10).

(2) Install and tighten hinge-to-roof panel nuts to 9 N·m (7 ft-lbs) torque.



**Fig. 9 Liftgate Hinges**



**Fig. 10 Liftgate Hinge, Gaskets and Shim**

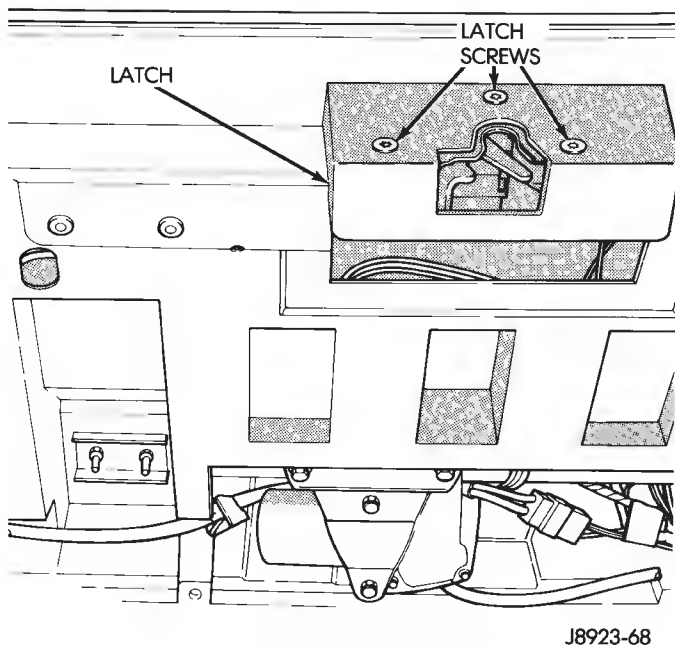
(3) Install the liftgate-to-hinge screws. Tighten screws to 9 N·m (7 ft-lbs) torque.

(4) Install the liftgate (headliner) upper trim molding (Fig. 7).

## LIFTGATE LATCH/KEY LOCK CYLINDER/STRIKER—XJ

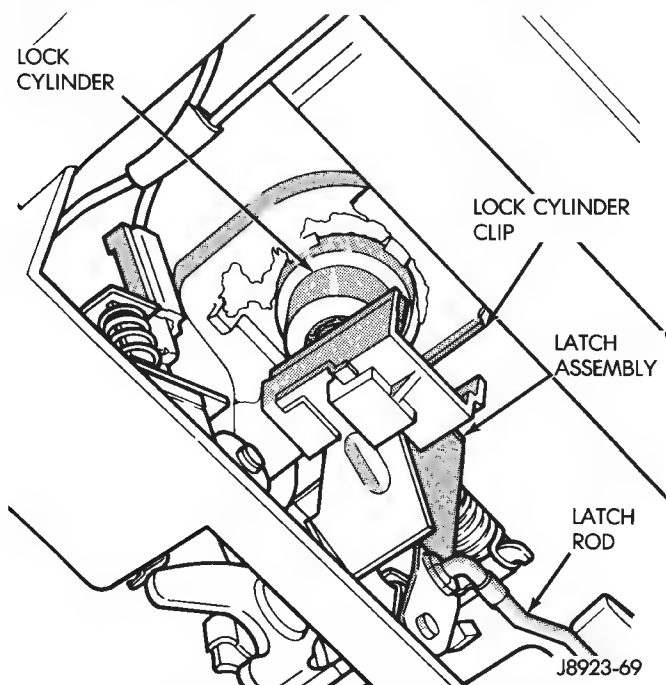
### REMOVAL

(1) Raise the liftgate and remove the latch screws (Fig. 11).



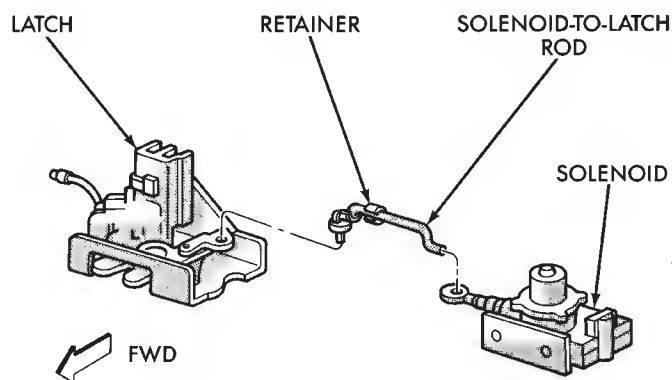
**Fig. 11 Liftgate Latch Screws**

(2) Disconnect the rod from the latch (Fig. 12).

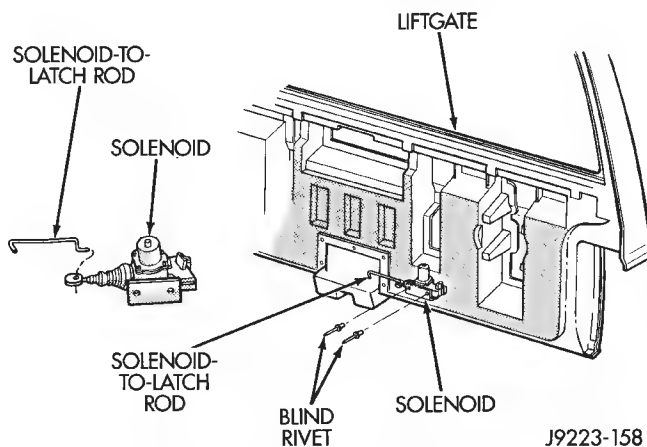


**Fig. 12 Latch and Key Lock Cylinder**

(3) Remove the latch from the liftgate (Fig. 13).  
 (4) Drill-out the rivet heads and remove the lock solenoid from liftgate (Fig. 14).

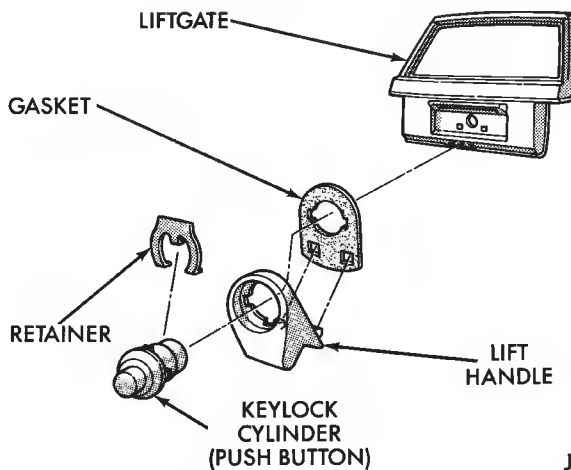


**Fig. 13 Liftgate Latch and Solenoid**



**Fig. 14 Liftgate Lock Solenoid**

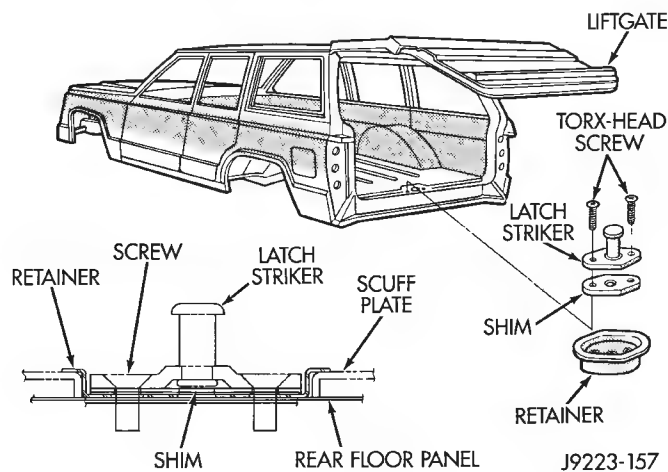
(5) Remove the lock cylinder retainer clip (Fig. 15).  
 (6) Remove the key lock cylinder.



**Fig. 15 Liftgate Key Lock Cylinder**



(7) Remove the latch striker screws from the scuff plate and cross sill (Fig. 16)

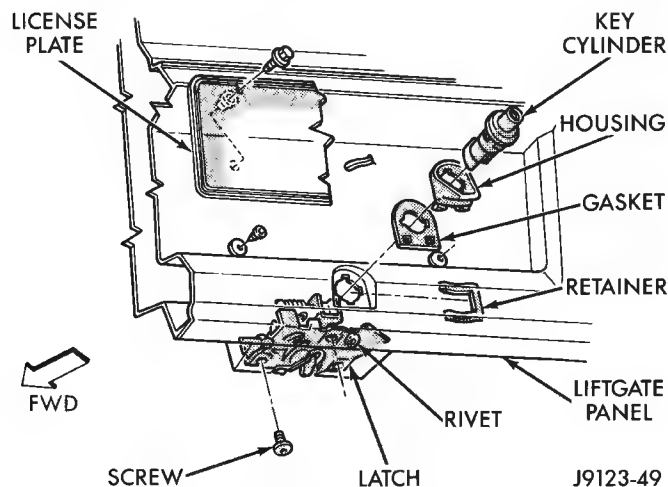


**Fig. 16 Liftgate Latch Striker**

(8) Remove the striker and shim from the retainer.

#### INSTALLATION

(1) Install the key lock cylinder. Secure the lock cylinder with the retainer clip (Fig. 17).



**Fig. 17 Liftgate Key Lock Cylinder and Latch**

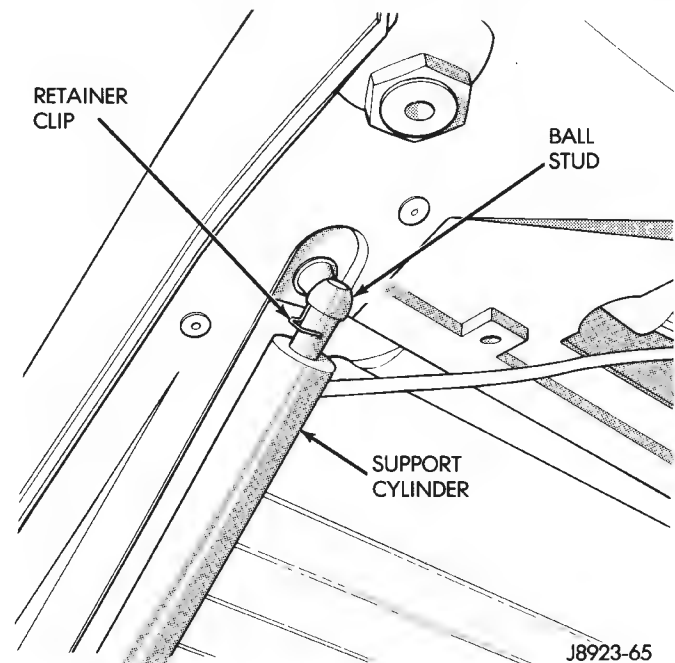
- (2) Position the latch in the liftgate.
- (3) Connect the latch rod.
- (4) Install and tighten the latch screws to 12 N·m (110 in-lbs) torque.
- (5) Install the striker retainer, shim, striker and screws in the scuff plate cross sill.

## LIFTGATE SUPPORT ROD CYLINDER—XJ

### REMOVAL

**WARNING: DO NOT REMOVE A SUPPORT ROD CYLINDER WITH THE LIFTGATE CLOSED. EACH SUPPORT ROD PISTON IS OPERATED BY HIGH PRESSURE GAS. IT CAN CAUSE DAMAGE AND/OR PERSONAL INJURY IF IT IS REMOVED WITH THE PISTON COMPRESSED. DO NOT ATTEMPT TO DISASSEMBLE OR REPAIR A SUPPORT ROD CYLINDER.**

- (1) Open the liftgate.
- (2) Support the liftgate in the open position.
- (3) Remove the clips that attach the support rod and cylinder to the ball studs (Fig. 1).



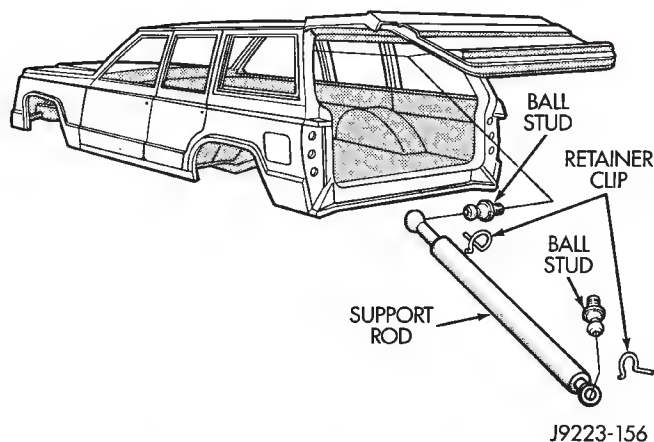
**Fig. 1 Support Rod Retainer Clip**

(4) Disconnect the support rod and cylinder from the ball studs and remove the cylinder from vehicle (Fig. 2).

(5) De-pressurize the original rod cylinder before disposal. Refer to the procedure below.

### INSTALLATION

- (1) Connect the replacement support rod and cylinder to the ball studs.
- (2) Secure the support rod and cylinder to the ball studs with the retainer clips.
- (3) Remove the support from the liftgate and test the operation of the support rod.



**Fig. 2 Support Rod, Retainer Clips and Ball Studs**

### LIFTGATE SUPPORT ROD CYLINDER DISPOSAL—XJ

**WARNING: SAFETY GOGGLES MUST BE WORN DURING THE DISPOSAL PROCEDURE. THE HIGH PRESSURE GAS CHARGE IN THE SUPPORT ROD CYLINDERS WILL BE RELEASED DURING THE PROCEDURE .**

(1) Remove the support rod cylinder(s) from the liftgate.

(2) Position the support rod cylinder horizontally in a vise and clamp the cylinder securely.

(3) Wrap the cylinder with 4-5 layers of shop towels.

(4) Measure 1 and 1/2 inches inward from the end of the cylinder. Mark this location on the towels with chalk. The cylinder will be punctured at this location to release the gas charge.

(5) Use a punch and hammer to puncture cylinder. Force the punch through towels and into the cylinder with a hammer. Continue striking the punch until the gas begins to escape **but do not remove the punch.**

(6) Hold the towels and punch in position until all the gas has escaped. Complete de-pressurization will require about 4 to 10 seconds. After all the gas has escaped, slowly remove the punch.

(7) Hold a towel over the hole in cylinder and press the support rod piston all the way into the cylinder to purge remaining oil.

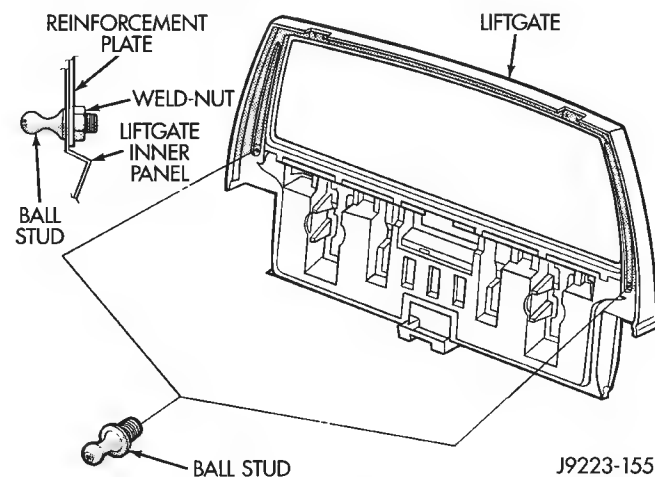
(8) Remove the support rod cylinder from the vise and discard it.

(9) If both support rod cylinders are being replaced, repeat this procedure for the remaining cylinder.

### LIFTGATE SUPPORT ROD BALL STUD REPLACEMENT—XJ

#### REMOVAL

- (1) Open the liftgate.
- (2) Support the liftgate in the open position.
- (3) Remove the retainer clip that attaches the support rod and cylinder to the ball stud.
- (4) Disconnect the support rod from the ball stud.
- (5) Remove the ball stud from the liftgate with a T-30 Torx-head socket wrench (Fig. 3).



**Fig. 3 Support Rod Ball Studs**

#### INSTALLATION

(1) Install the replacement ball stud in the liftgate with a T-30 Torx-head socket wrench. Tighten the ball stud to 7 N·m (62 in-lbs) torque.

(2) Connect the support rod to the ball stud.

(3) Secure the support rod to the ball stud with the clip.

(4) Remove the support from the liftgate and test the operation of support rod.

### LIFTGATE ADJUSTMENT—XJ

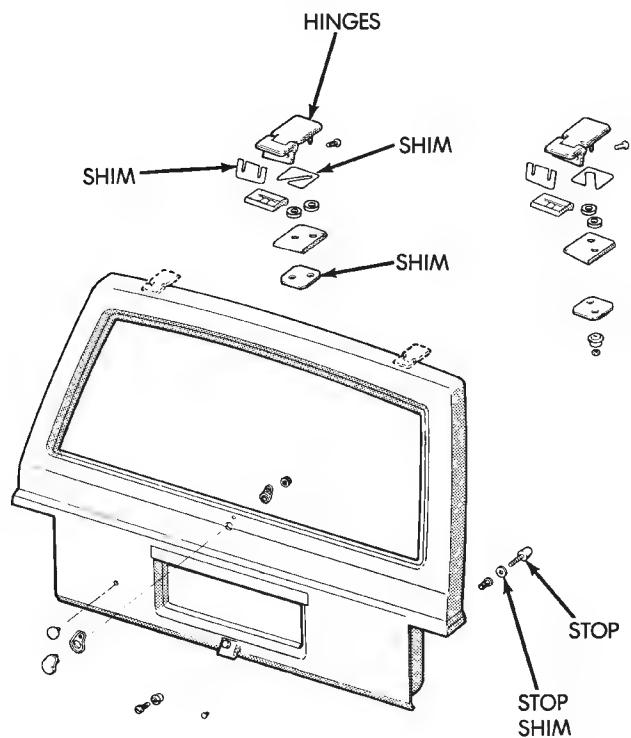
#### SERVICE INFORMATION

The position of the liftgate can be adjusted upward or downward, and inward or outward by the use of hinge shims. The liftgate stop bumpers must also be adjusted if liftgate hinges are adjusted. The inward/outward position of each stop bumper is adjusted by the use of shims (Fig. 4).

#### ADJUSTMENT PROCEDURE

(1) To move the position of the liftgate inward or outward, remove or add shims between the hinge halves and liftgate.

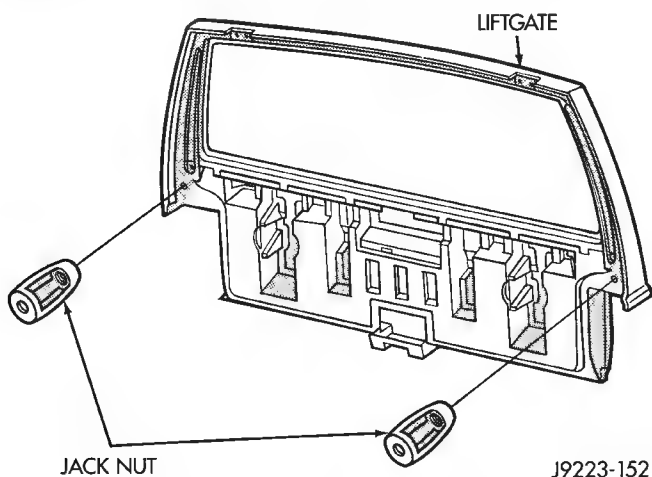
(2) To move the position of the liftgate upward or downward, remove or add shims between the hinge halves and roof panel.



J9423-113

**Fig. 4 Liftgate Adjustment Shims**

(3) To move the position of liftgate stop bumpers inward or outward, remove or add shims between the stop bumper screws and anchors (Fig. 5).

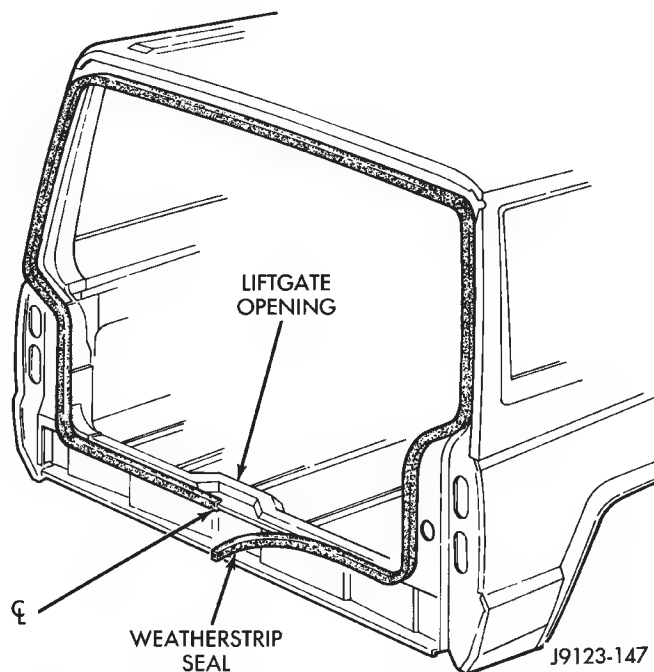


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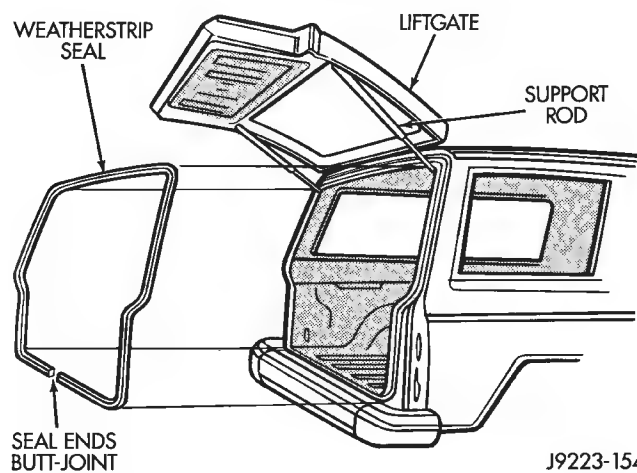
**Fig. 5 Stop Bumper Screw Anchors****LIFTGATE OPENING WEATHERSTRIP SEAL—XJ****REMOVAL**

(1) Pull the seal away from the flange around the perimeter of liftgate opening and remove it (Fig. 6 and 7).

(2) Clean the flange as necessary.



J9123-147

**Fig. 6 Liftgate Opening Weatherstrip Seal Removal/Installation**

J9223-154

**Fig. 7 Liftgate Opening Weatherstrip Seal****INSTALLATION**

(1) Position weatherstrip seal in the opening with the left end of the seal at the opening centerline. Install the seal in a clockwise direction.

(2) Move to the left and mate the seal with the bottom-left flange (Fig. 6).

(3) Move upward and mate the seal with the left-side flange.

(4) Move to the right and mate the seal with the top-left roof flange.

(5) Seat the installed part of the seal with a roller. Move the roller from the left-bottom end of seal to the top-left half of the seal.

(6) Move to the right and mate the seal with the top-right roof flange.



(7) Move downward and mate the seal with the right-side flange.

(8) Move to the left and mate the seal with the bottom-right flange.

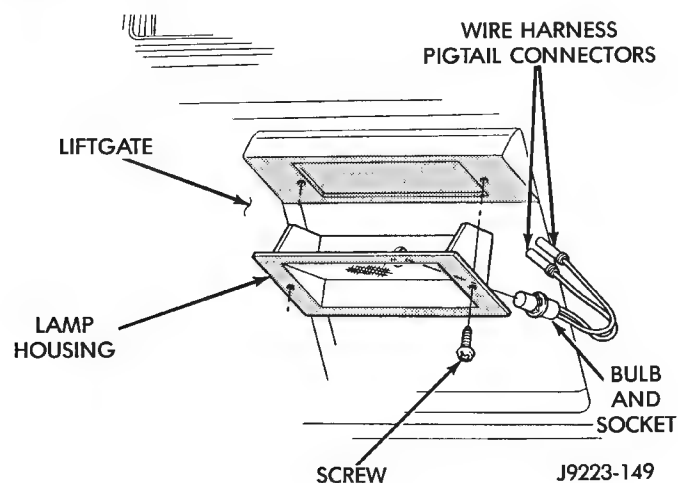
(9) Center and butt seal the ends together at the centerline.

(10) Seat the remaining part of the seal with a roller. Move the roller the from top-left half of the seal to the right-bottom end of the seal.

### LIFTGATE LICENSE PLATE LAMP HOUSING—XJ

#### REMOVAL

(1) Remove the lamp housing screws from the liftgate (Fig. 8).



**Fig. 8 Liftgate License Plate Lamp Housing**

- (2) Disconnect bulb socket from lamp housing.
- (3) Remove the housing from the liftgate.

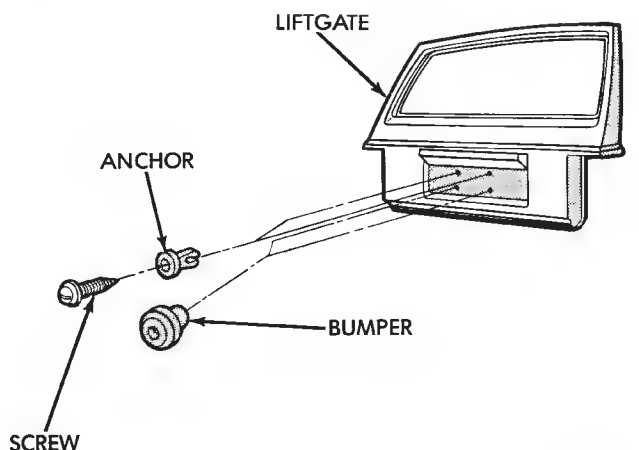
#### INSTALLATION

- (1) Position the lamp housing at the liftgate.
- (2) Connect the bulb socket to the lamp housing.
- (3) Install the lamp housing retaining screws in the liftgate.

### LIFTGATE LICENSE PLATE SCREW ANCHOR AND BUMPER—XJ

#### ANCHOR REPLACEMENT

- (1) Remove the screw from the anchor (Fig. 9).



**Fig. 9 Liftgate License Plate Screw Anchors and Bumpers**

- (2) Pry the anchor from the liftgate.
- (3) Compress the ends and insert the anchor in the liftgate hole.
- (4) Install the screw in the anchor.

#### BUMPER REPLACEMENT

- (1) Pry the bumper from the liftgate.
- (2) Insert the replacement screw anchor in the liftgate hole.

## STATIONARY WINDOW GLASS

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## INTERIOR REARVIEW MIRROR—XJ

**MIRROR REMOVAL**

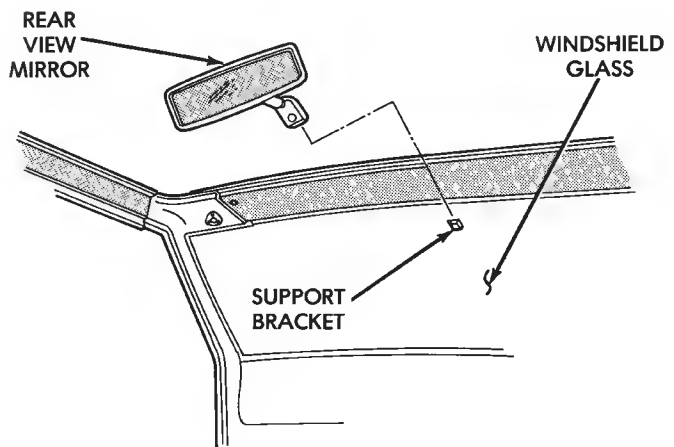
- (1) Loosen the mirror base-to-bracket setscrew (Fig. 1).
- (2) Slide the mirror base upward and off the support bracket (Fig. 2).

**MIRROR INSTALLATION**

- (1) Slide the mirror base onto the support bracket (Fig. 2).

**CAUTION:** Do not over-tighten setscrew because glass chipping or breakage could result.

- (2) Tighten the setscrew to 1 N·m (9 in-lbs) torque (Fig. 1).



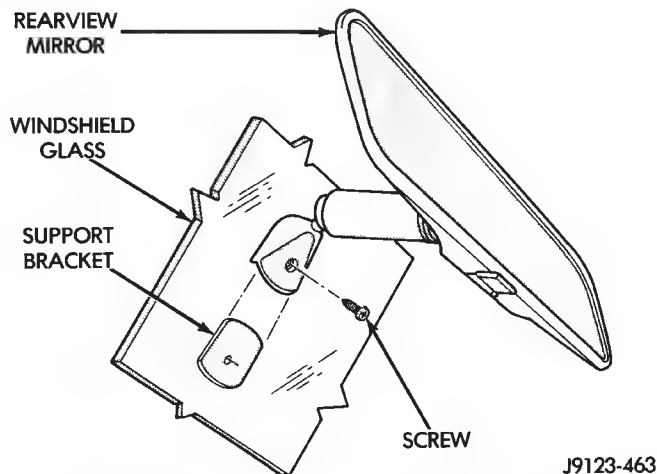
J9223-115

Fig. 2 Interior Rearview Mirror Removal/Installation

## INTERIOR REARVIEW MIRROR SUPPORT BRACKET REPLACEMENT—XJ

**PREPARATION**

- (1) Mark reference lines for the mirror support bracket on the outside of windshield glass with a wax pencil.
- (2) If the vinyl pad remained on the windshield glass, soften and remove it with a heat gun.
- (3) Clean the support bracket surface area on the glass. Use a mild abrasive cleaning powder on a cloth saturated with isopropyl (rubbing) alcohol.
- (4) Lightly sand the contact surface on the support bracket with fine grit sandpaper. Wipe bracket contact surface clean with a paper towel and alcohol.



J9123-463

Fig. 1 Interior Rearview Mirror Setscrew Removal/Installation

**INSTALLATION**

(1) Apply adhesive to the act surface on the support bracket according as follows:

- crush the vial in the plastic housing of the accelerator to saturate the felt applicator.
- remove the paper sleeve.
- apply a generous amount of accelerator to the contact surface on the mirror support bracket.
- do not touch the support bracket contact surface after the accelerator has been applied.
- allow the accelerator to dry for at least five minutes.

and

(2) Apply accelerator to the support bracket contact surface on the windshield glass. Allow the accelerator to dry for one minute.

(3) Install the mirror bracket on the windshield glass as follows:

- apply one drop of adhesive at the center of support bracket contact surface on windshield glass.
- immediately apply an even coat of adhesive to the contact surface on the support bracket.
- align the support bracket with the position reference lines on the windshield glass, then
- press and hold the support bracket in-place for at least one minute.

**Ensure that the mirror support bracket is correctly aligned because the adhesive will cure rapidly.**

(4) Allow the adhesive to cure for 8-10 minutes, then remove any residue adhesive with an alcohol-dampened cloth.

(5) Allow the adhesive to cure for an additional 8-10 minutes before installing the mirror base on the support bracket.

**DESCRIPTION AND OPERATION****SAFETY PRECAUTIONS**

**WARNING: DO NOT OPERATE THE VEHICLE WITHIN 24 HOURS OF WINDSHIELD INSTALLATION. IT TAKES AT LEAST 24 HOURS FOR THE URETHANE ADHESIVE TO CURE. IF IT IS NOT CURED, THE WINDSHIELD MAY NOT PERFORM PROPERLY IN AN ACCIDENT.**

**URETHANE ADHESIVES ARE APPLIED AS A SYSTEM. USE GLASS CLEANER, GLASS PREP SOLVENT, GLASS PRIMER, AND PINCHWELD (FENCE) PRIMER PROVIDED BY THE ADHESIVE MANUFACTURER. IF NOT, STRUCTURAL INTEGRITY COULD BE COMPROMISED.**

**BE SURE TO REFER TO THE URETHANE MANUFACTURER'S DIRECTIONS FOR CURING TIME SPECIFICATIONS, AND DO NOT USE ADHESIVE AFTER ITS EXPIRATION DATE.**

**VAPORS THAT ARE EMITTED FROM THE URETHANE ADHESIVE OR PRIMER COULD CAUSE PERSONAL INJURY, USE THEM IN A WELL VENTILATED AREA.**

**SKIN CONTACT WITH URETHANE ADHESIVE SHOULD BE AVOIDED, OR PERSONAL INJURY MAY RESULT.**

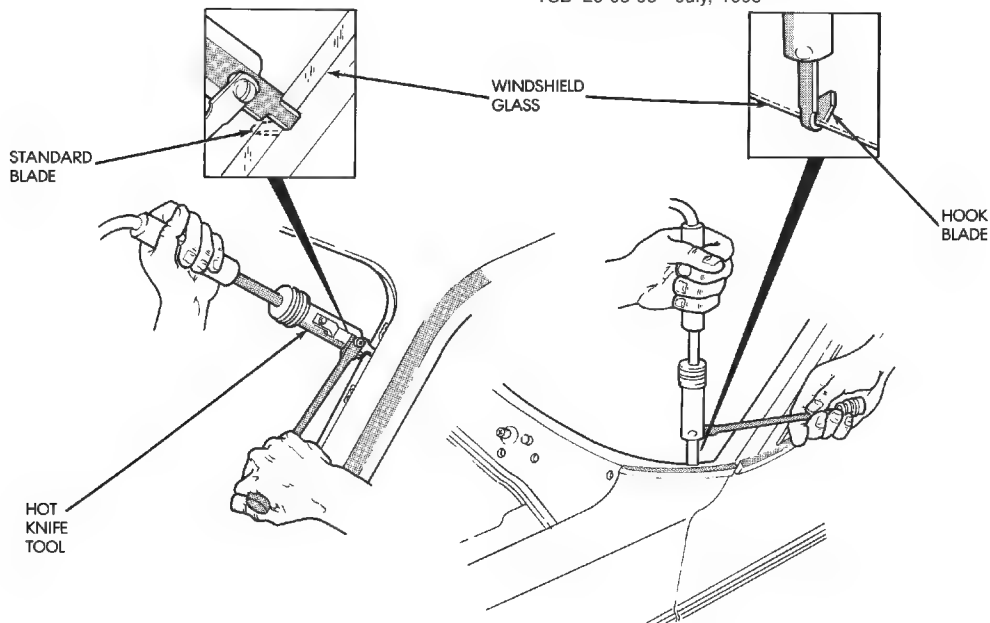
**ALWAYS WEAR EYE AND HAND PROTECTION WHEN WORKING WITH GLASS.**

**CAUTION: Protect all painted or trimmed surfaces from coming in contact with urethane or primers.**

**Be careful not to damage painted surfaces when removing moldings or cutting urethane around windshield.**

It is difficult to salvage a windshield during the removal operation. The windshield is part of the structural support for the roof. The urethane bonding used to secure the windshield to the fence is difficult to cut or clean from any surface. If the moldings are set in urethane, it would also be unlikely they could be salvaged. Before removing the windshield, check the availability of the windshield and moldings from the parts supplier.





**Fig. 3 Cutting Glass Urethane Adhesive With Hot Knife**

J8923-74

## REMOVAL AND INSTALLATION

### WINDSHIELD

Windshield glass removal is accomplished by the use of a razor knife and an electric hot knife to cut through the urethane adhesive. This removal method applies in all instances.

Depending on the circumstances, either one of two windshield glass installation methods can be used:

- The short method.
- The extended method.

The short method is used when the windshield glass is removed intact, and the body opening and the pinchweld flanges do not require repair.

The extended method must be used when the body opening or a flange is damaged. The extended method must also be used when urethane no longer adheres to either the windshield glass or the pinchweld flanges.

## REMOVAL

**NOTE:** When using the windshield glass short installation method, ensure that a bead of urethane remains on the pinchweld flange.

- (1) Cover the interior and exterior body surface areas with a protective covering.
- (2) With doors open, remove the windshield wiper arms, interior trim moldings and rearview mirror.
- (3) Make a cut around the **perimeter** of the windshield glass along the glass edge with a razor knife.
- (4) Clean the blade of the hot knife with solvent and a cloth. Sharpen the blade with a fine-tooth file.

**CAUTION:** When cutting through urethane with a hot knife, do not allow the knife blade to remain stationary at any location. Excessive heat will permanently soften urethane and cause complete replacement of the urethane.

(5) Start the hot knife blade (special tool C-4386) between the glass and the urethane. Next, cut the adhesive as close to the glass edge as possible (Fig. 1). Allow as much adhesive to remain on the pinchweld flange as possible. **For best cutting results, clean the knife blade frequently with steel wool while the blade is hot.**

(6) Remove the windshield glass from the body opening.

(7) After the hot knife blade has cooled, clean the blade with solvent and a clean cloth.

### INSTALLATION—SHORT METHOD

Normally, after a replacement windshield glass is installed, the rearview mirror bracket also requires installation. **Do not install the bracket until after the windshield glass installation is completed.**

(1) Inspect the windshield opening pinchweld flanges. Prime any bare spots with urethane primer. Allow a minimum of 18 minutes for dry time.

(2) Inspect urethane bead for high spots. Level bead by shaving off high spots with a razor knife.

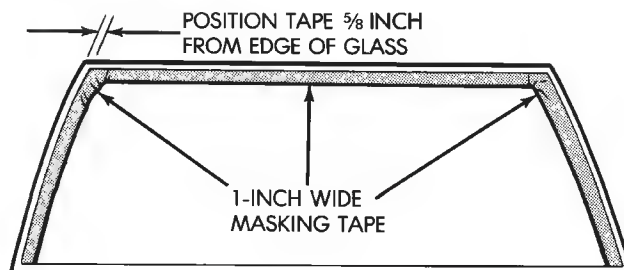
(3) Clean the outer edge of windshield glass with naphtha or an equivalent product.

(4) Prime outer perimeter of interior side of glass 16 mm (5/8 inch) from edge. Use a wipe-off type urethane primer and wipe glass dry after primer application.

**NOTE: The reveal molding has an adhesive applied to the windshield contact surface to help secure the molding to the windshield during the installation procedure.**

(5) Apply the molding to the windshield:

- With the molding at room temperature, press the molding onto the windshield corners.
- From corner to corner, work the molding to the center of each side. (Some stretching of the molding may be required during this procedure.)



J8923-76

**Fig. 4 Masking Tape Location For Blackout Primer**

(6) Place the glass on the pinchweld flanges and inspect for gaps in the urethane. Gaps in excess of 3 mm (1/8 inch) must be filled with urethane.

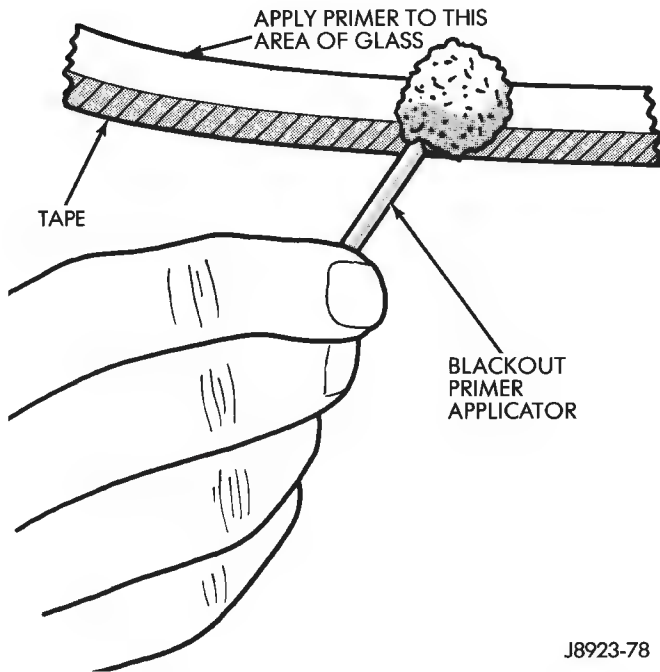
(7) Adjust windshield glass position until it is aligned with the flanges and adhesive. Next, make alignment marks on the glass and body.

(8) Remove the windshield glass and position it on a flat surface.

**CAUTION: Avoid spilling or dripping primer on painted surfaces. Clean spills or drips immediately. The primer will damage the paint if it remains on the surface for any length of time.**

(9) If the replacement windshield glass does not have blackout primer:

- Attach a 25 mm (1 in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass.
- Do not attach tape along the bottom of the glass and **attach it only to the inside of the glass.**



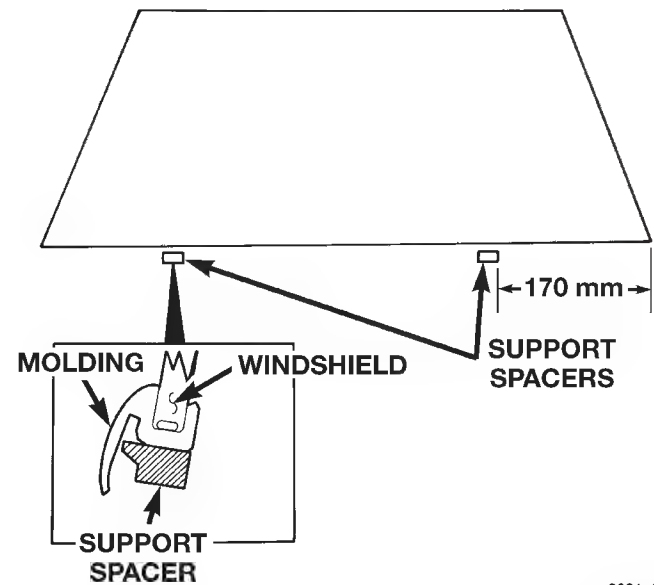
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**Fig. 5 Blackout Primer Application**

- Clean the 16-mm (5/8-in) wide surface area around the glass with isopropyl alcohol.
  - Thoroughly mix and apply glass blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 3).
  - Allow the primer to dry for at least 10-12 minutes.
- (10) Apply a small amount of adhesive to the bottom support spacers and attach the support spacers to the bottom of the windshield, 170 mm inboard from the outer windshield edge (Fig. 4).
- (11) Cut the urethane adhesive applicator nozzle (Fig. 7).

**CAUTION: Be prepared to install glass immediately after applying the adhesive, as the adhesive will begin to cure in less than 10 minutes.**

(12) Apply a continuous, 6-mm (1/4-in) diameter bead of urethane adhesive to the surface area.



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**Fig. 6 Windshield Bottom Support Spacers**

(13) Align the glass with the reference marks and position the glass on the pinchweld flanges. Ensure that the windshield glass is correctly seated on the support spacers.

(14) Force the windshield glass inward just enough to wet-out and set the urethane. Use care to avoid excessive squeeze-out of adhesive.

(15) Water test the windshield with a water spray after installation. Do not direct high pressure streams of water directly at urethane. If any leaks are detected, apply urethane as necessary.

(16) If used remove the masking tape from the inner surface of the glass.

(17) Install all components and clean the vehicle.

(18) Open the vehicle windows to prevent interior pressure while the urethane is curing. **If not vented, pressure in the interior of the vehicle may interfere with proper glass bonding.**

(19) Install the rearview mirror.



**INSTALLATION—EXTENDED METHOD**

Normally, after a windshield is installed, the rear-view mirror bracket also requires installation. **Do not install the bracket until after the windshield installation is completed.**

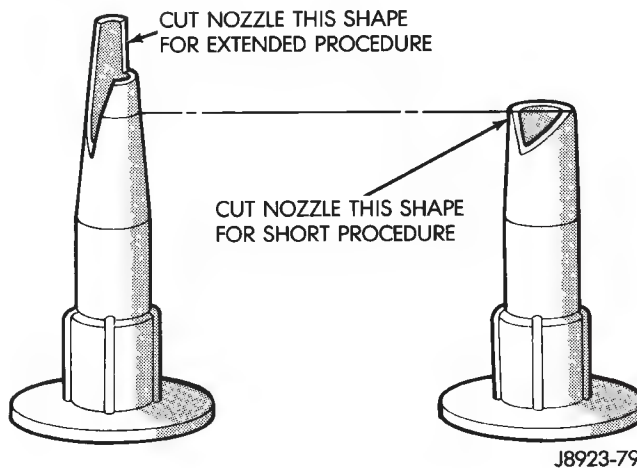
(1) Remove all of the urethane from all pinchweld flanges. Use an electric hot knife and a plow-type knife blade to remove the adhesive.

(2) Inspect and repair the windshield opening and pinchweld flanges.

(3) Prime the pinchweld flanges with a urethane base primer. However, if the flange is color-coated with paint, prime the flanges with a paint finish primer. **This is important because urethane adhesive will not adhere to all color-coat paints.** Allow primer sufficient time to dry.

**NOTE:** The reveal molding has an adhesive applied to the windshield contact surface to help secure the molding to the windshield during the installation procedure.

- (4) Apply the reveal molding to the windshield:
- With the molding at room temperature, press the molding onto the windshield corners.
  - From corner to corner, work the molding to the center of each side. (Some stretching of the molding may be required during this procedure).



**Fig. 7 Applicator Nozzle Preparation**

(5) Install and inspect the fit of the windshield on the pinchweld flanges as follows:

- Position windshield until it is aligned within windshield opening.
- Measure the gap between the pinchweld flanges and glass around perimeter of the glass and flange.
- The reveal molding should equally cover the A-Pillars on both sides.
- The flanges should also extend above the glass edge equally around the perimeter of the opening.

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Publication No. 81-370-5146  
TSB 26-05-95 July, 1995

(6) If the pinchweld flanges require repair, remove the windshield glass and straighten, align, or repair the flange(s) as necessary.

(7) Position the windshield in the opening and inspect the windshield fit again. Mark the windshield final position on the glass and body with a wax pencil (or use masking tape). The marks (or masking tape) will be used for installation alignment reference.

(8) If the replacement windshield does not have blackout primer:

- Attach a 25-mm (1-in) wide masking tape band around the interior side of glass 16 mm (5/8 in) from edge of glass (Fig. 2).
- Do not attach tape along the bottom of the glass and attach only to the inside of glass.
- Thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 4).
- Allow the primer to dry for at least 10-12 minutes.

(9) Apply a small amount of adhesive to the bottom support spacers and attach the support spacers to the bottom of the windshield, 170 mm inboard from the outer windshield edge (Fig. 6).

(10) Cut the urethane applicator nozzle (Fig. 7).

(11) Apply a continuous bead of urethane to the surface area with blackout primer on the interior side of glass. The bead should be 9-mm (3/8-in) wide by 12.7-mm (1/2-in) deep for best results.

**CAUTION: Be prepared to install the windshield immediately after applying the adhesive, as the adhesive will begin to cure in less than 10 minutes.**

(12) Align the windshield with the wax pencil installation alignment reference marks (or the tape strips). Position the windshield on pinchweld flanges and spacers.

(13) Force the windshield inward just enough to wet-out and set the urethane. Use care to avoid excessive squeeze-out of adhesive.

(14) Water test the windshield with a water spray after installation. Do not direct high pressure streams of water directly at the urethane. If any leaks are detected, apply urethane as necessary.

(15) If used, remove the masking tape from the inner surface of glass.

(16) Install all components and clean the vehicle. If necessary, refer to the installation procedures.

(17) Open the vehicle windows to prevent interior pressure while the urethane adhesive is curing. **If not vented, pressure in the interior of vehicle will interfere with glass bonding.**

(18) Install the rearview mirror on the bracket.

## REAR DOOR STATIONARY WINDOW GLASS

### REMOVAL

(1) Lower the window glass.

(2) Pry the window beltline molding away from the clips and remove the molding from the door.

(3) Remove the window weatherstrip seals from the door.

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**REAR QUARTER WINDOW GLASS/REAR QUARTER PLASTIC INSERT—XJ****REMOVAL**

(1) If equipped, remove the quarter window reveal molding (Fig. 9).

(2) Remove the quarter window interior trim covers.

(3) Separate the weatherstrip seal lip from the window opening flanges. Use a pry tool and carefully push the window glass and seal outward.

(4) Remove the weatherstrip seal and window glass from window opening.

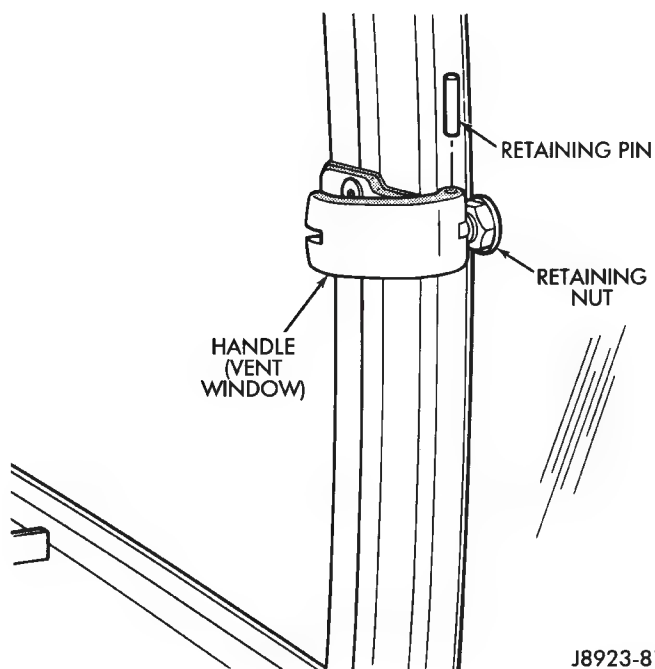
(5) Remove the weatherstrip seal from the window glass.

**INSTALLATION**

(1) Clean the original sealant from the weatherstrip channels and window opening flanges.

(2) Apply a 4-mm (1/6-in) diameter bead of sealant to the window channel in the weatherstrip seal.

(3) Install the weatherstrip on the window glass. Install the seal installation cord in the window opening flange channel as follows:

**Fig. 8 Vent Window Handle Removal/Installation****REAR QUARTER VENT WINDOW GLASS—XJ****REMOVAL**

(1) Remove the vent window handle retaining pin and nut (Fig. 8).

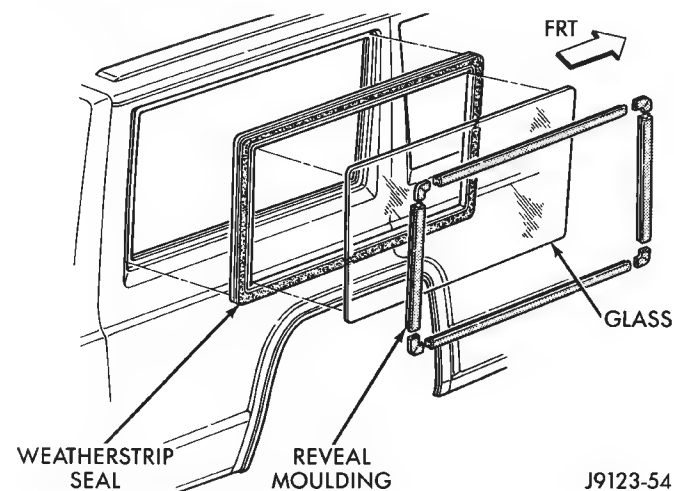
(2) Remove the hinge-to-glass screws and remove the window glass. If glass adheres to the hinges, remove the glass by carefully pushing out hinge screw inserts.

**INSTALLATION**

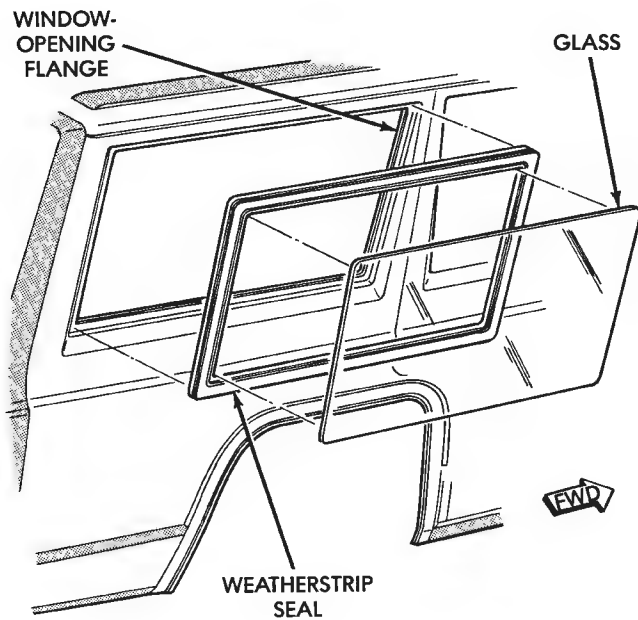
(1) Position the vent window glass at the hinges and install the screws.

(2) Install the handle, pin and nut (Fig. 8).

(3) Test the vent window for water leaks.

**Fig. 9 Quarter Window Reveal Molding, Glass and Seal**

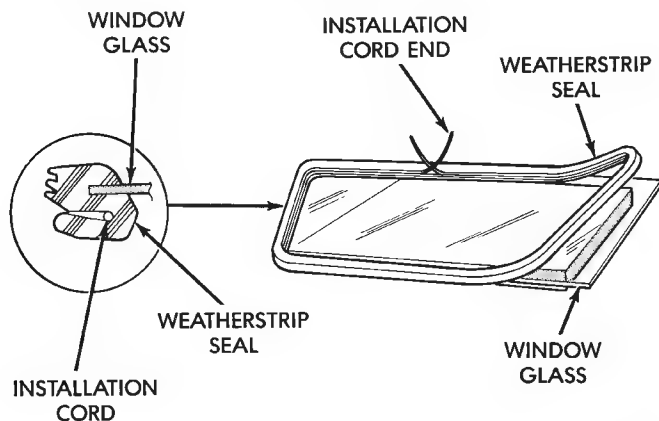




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**Fig. 23 Quarter Window Glass and Seal**

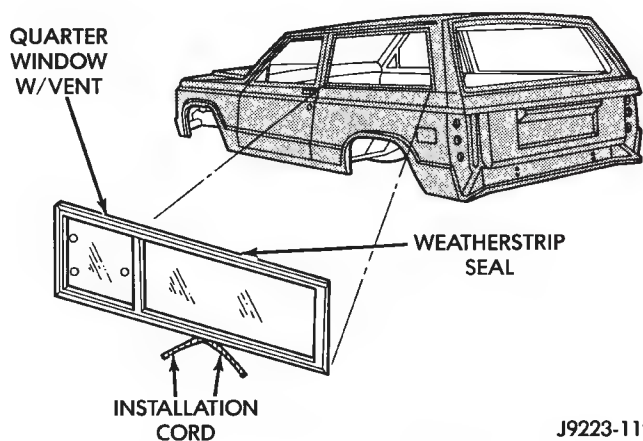
- Moisten a length of 6-mm (1/4-in) diameter cord with a soap and water solution.
- Ensure that the cord is long enough to go all the way around the perimeter of the weatherstrip.
- Insert the cord into the window opening flange channel in the weatherstrip seal.



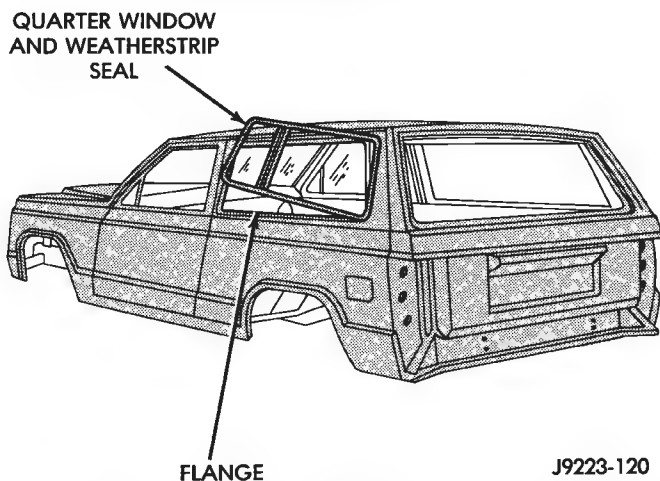
J9223-118

**Fig. 24 Weatherstrip Seal and Cord Installation**

- (4) Apply a 6-mm (1/4-in) diameter bead of sealant to the window opening flanges.
- (5) For two-door vehicles, apply a 3-mm (1/8-in) diameter bead of sealant at the quarter panel applique and liftgate pillar seam.
- (6) Position the quarter window glass and the weatherstrip seal in the window opening (Fig. 25 and 26) with the free ends of the cord inside the vehicle (Fig. 27).



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**Fig. 25 Quarter Window With Vent**

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**Fig. 26 Quarter Window Glass and Seal In Window Opening**

(7) Pull on each end of the cord to pull the weatherstrip seal channel lip over the window opening flanges.

(7) Test the vent window for water leaks.

(8) Install the interior trim cover.

(9) If equipped, install the quarter window reveal molding.

## LIFTGATE WINDOW GLASS—XJ

### REMOVAL

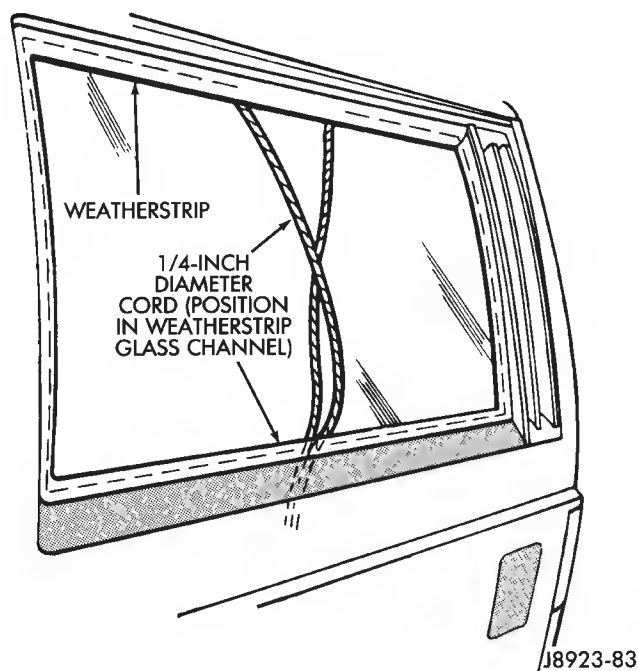
(1) If equipped, remove the liftgate window reveal molding (Fig. 28).

(2) Remove the interior trim panels.

(3) Use a pry tool to separate the weatherstrip seal lip from the window opening flanges. Push the glass and weatherstrip seal outward from the top toward the rear of the vehicle.

(4) Remove the glass and weatherstrip seal from the liftgate (Fig. 28).

(5) Remove the weatherstrip seal from the window glass.



**Fig. 27 Quarter Window Glass and Seal Installation**

(6) Clean the weatherstrip channels and window opening flanges.

### INSTALLATION

(1) Apply a 4-mm (1/6-in) diameter bead of sealant to liftgate glass channel in the weatherstrip seal (Fig. 28).

(2) Install weatherstrip seal on the glass (Fig. 29). Install the seal installation cord in the window opening channel as follows:

- Moisten a length of 6-mm (1/4-in) diameter cord with a soap and water solution.
- Insert the cord into the window opening flange channel in the weatherstrip seal.

(3) Apply a 6-mm (1/4-in) diameter bead of sealant around the perimeter of the window opening flange in the liftgate (Fig. 28).

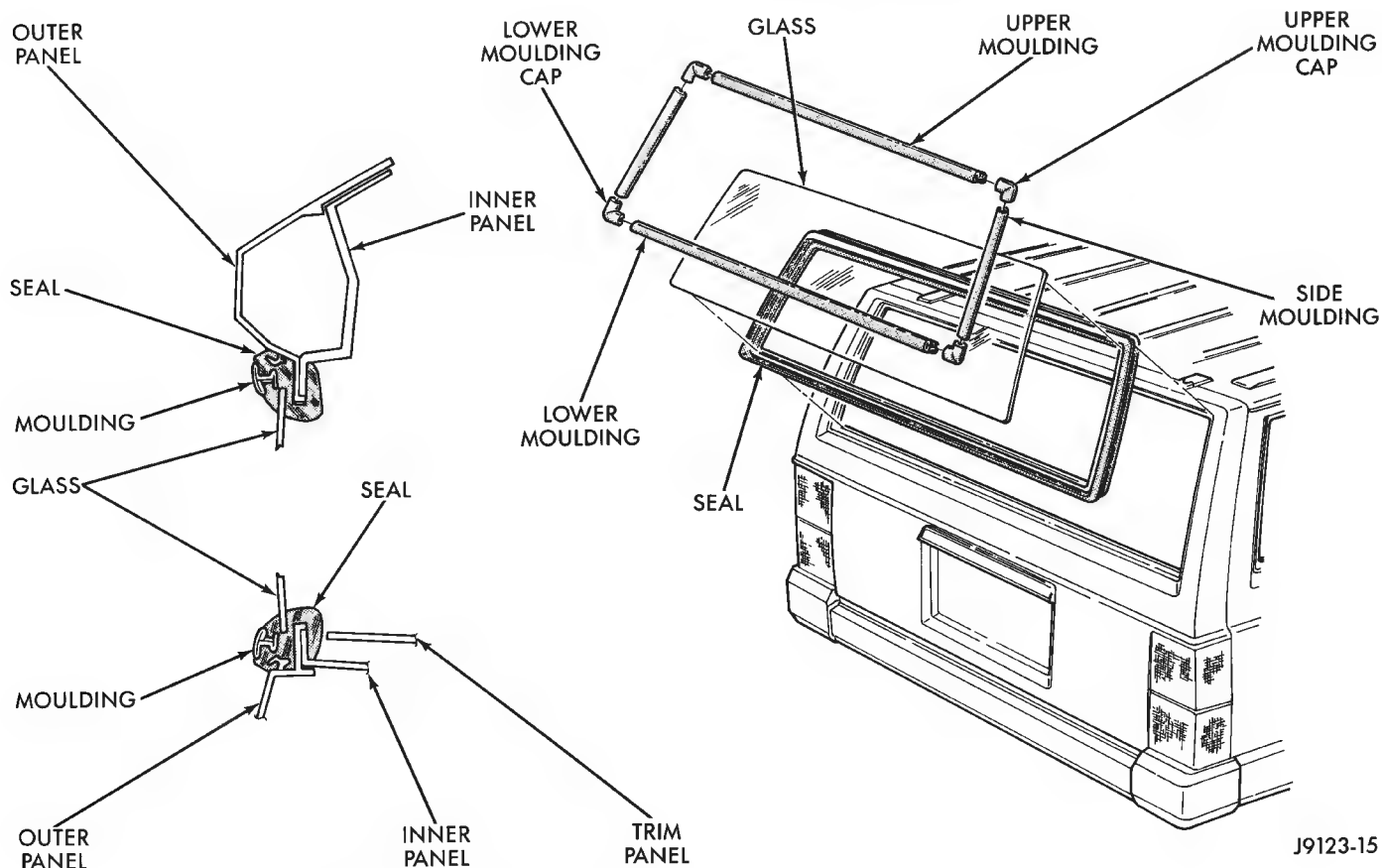
(4) Install the window glass and the weatherstrip seal in the window opening with the cord according to the following instructions:

- Position the window glass and the weatherstrip seal in the window opening with the free ends of the cord inside the vehicle (Fig. 30).
- Pull on each end of the cord to pull the weatherstrip seal channel lip over the window opening flange (Fig. 31).

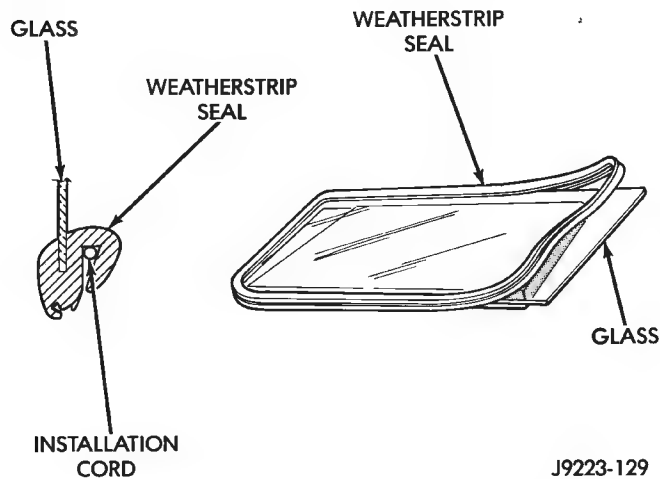
(5) Test the liftgate window for water leaks.

(6) Install the interior trim covers.

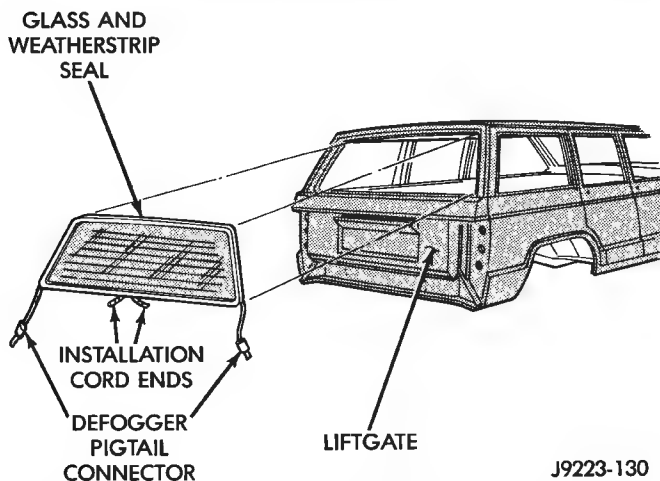
(7) If equipped, install the liftgate window reveal molding (Fig. 28).



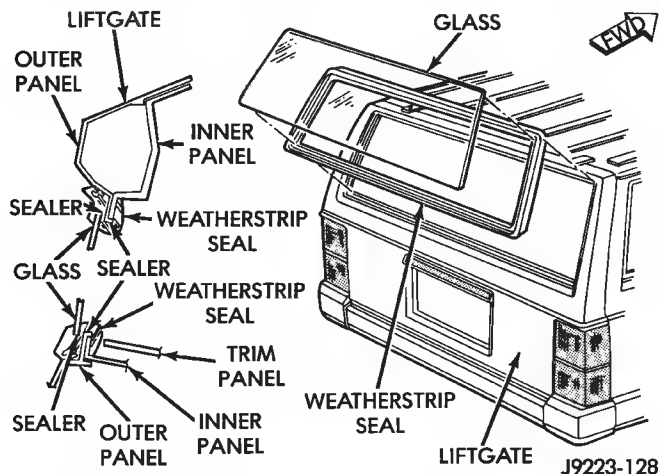
**Fig. 28 Liftgate Window Glass Reveal Molding, Glass and Seal**



**Fig. 29 Weatherstrip Seal and Cord Installation**



**Fig. 30 Liftgate Window Glass Installation With Cord**



**Fig. 31 Liftgate Window Glass and Weatherstrip Seal**

## STATIONARY GLASS WATER LEAK DETECTION AND REPAIR—XJ

### SERVICE INFORMATION

Water leaks around the windshield or a stationary window glass can be sealed without removing the glass. If the windshield/window glass is bonded and only has a small leak, seal it with a liquid butyl sealant. If the weatherstrip seal or urethane adhesive has a large break, a urethane adhesive must be used to seal the leak.

### LEAK TEST

Water test the windshield/window with a spray only. **Do not use hard streams of water.** Work from the bottom to the top of windshield/window glass.

If a water leak exists between the glass and weatherstrip seal (or between the seal and a body flange):

- Push the glass outward at the leak area, and determine the extent of the gap.

Push the glass outward while a helper sprays the windshield/window with water.

### SEALING MINOR LEAK AREAS

(1) Thoroughly clean and remove all foreign material from the leak area. Dry area with compressed air.

(2) Seal the leak area with butyl sealant. Allow the sealant to cure for at least 1/2 hour. Next, water test the glass to ensure that the leak is sealed.

### SEALING MAJOR LEAK AREAS

(1) Thoroughly clean the leak area.

(2) As applicable, apply primer to either the windshield/window or weatherstrip seal leak area. Use blackout primer on the windshield/window and urethane primer on the weatherstrip seal.

(3) Apply urethane adhesive to the leak area. Use an adhesive cartridge with a pointed nozzle.

(4) Water test the windshield/window immediately with cold water spray. Allow water to spill over the edge of the windshield/window and weatherstrip seal.

**Do not direct a hard stream of water on recently applied urethane.**

(5) Apply additional urethane adhesive, if necessary.

(6) Remove any excess urethane adhesive.



## TRAILER HITCH

### TRAILER HITCH—XJ

#### CLASS III HITCH

A class III weight-distributing/equalizer type hitch can be used to tow a trailer:

- Having a maximum gross weight of 5,000 lbs/2250 kg.
- Having a maximum tongue weight of 750 lbs/332 kg).

The following vehicle basic equipment is required for class III trailer towing:

- P205/75R15 or larger tires.
- Full size spare tire.
- Trailer sway control.
- Trailer tow wire harness and connector.
- Heavy duty turn signal flasher element.
- Heavy duty axle (with synthetic lubricant).
- Heavy duty cooling system.
- Heavy duty generator/battery.
- Auxiliary automatic transmission fluid cooler.
- I-6, 4.0L engine.

Wide-angle type door mirrors are recommended but not required.

#### WIRE HARNESS CONNECTORS

##### CLASS I HITCH CONNECTOR

The trailer tow wire harness connector for class I trailer hitches is a 5-terminal, in-line type connector. Terminal 5 is the source for vehicle ground (Fig. 1)

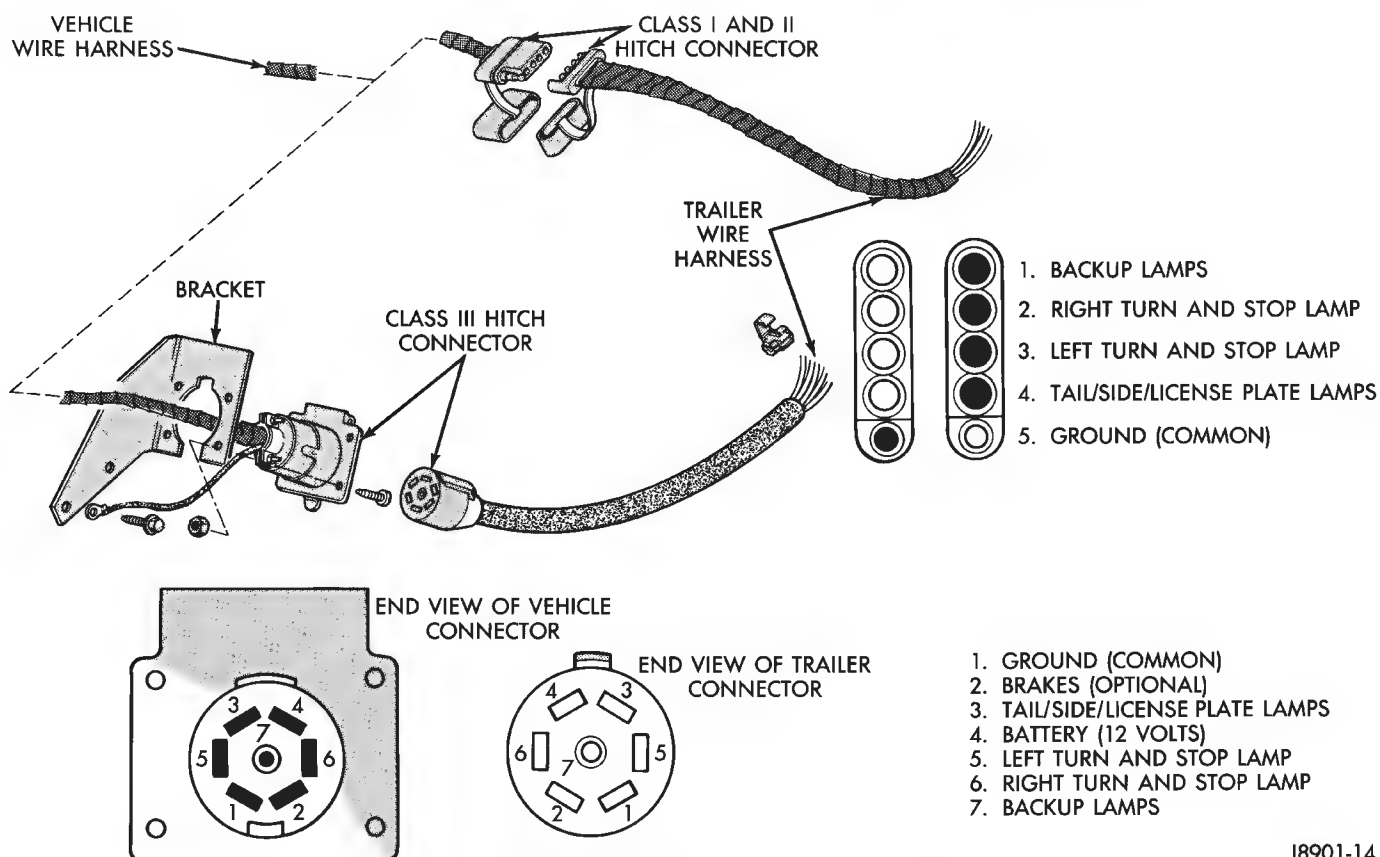
##### CLASS III HITCH CONNECTOR

The trailer tow wire harness connector for class III trailer-tow hitches is a 7-terminal, circular type connector (Fig. 2).

**The 12-volt circuit for the trailer is protected from overloads. A auto-reset type circuit breaker is located in the trailer tow wire harness near the plug-in relays.**

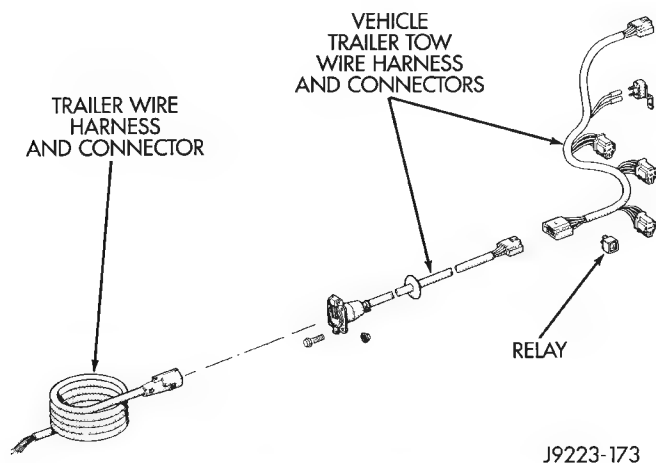
**CAUTION:** The trailer tow wire harness package does not include a vehicle battery isolator unit. Because of this, the trailer battery can totally discharge the vehicle battery if the engine is not operated for an extended period of time.

A blue wire (without a connector) located under instrument panel near fuse panel is available for trailer electric brake control unit.



J8901-14

Fig. 1 Trailer Tow Wire Harness Connectors



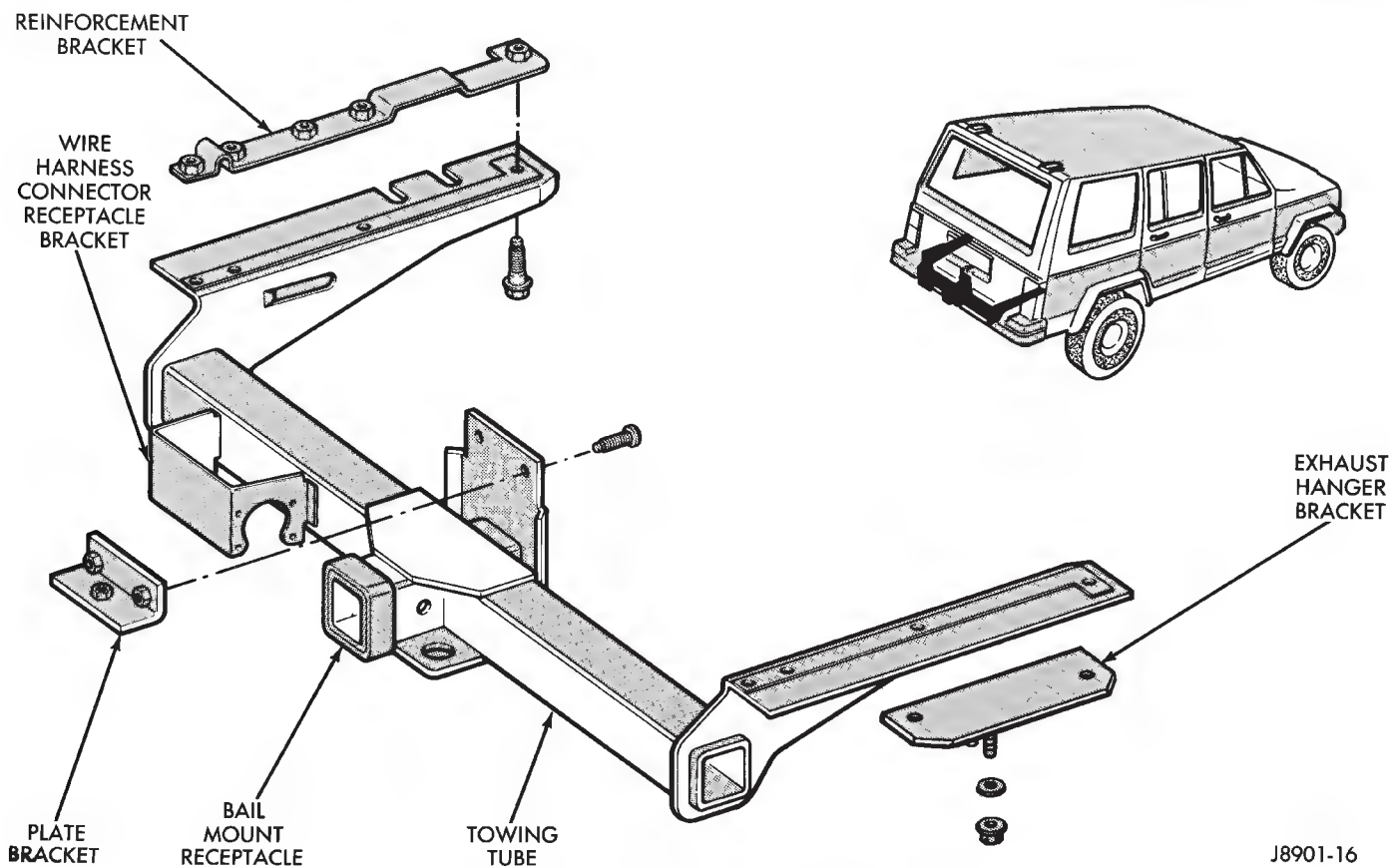
**Fig. 2 Class III Trailer Tow Wire Harness and Connectors**

The stop lamp and turn signal plug-in relays are located behind left quarter trim panel (Fig. 3).

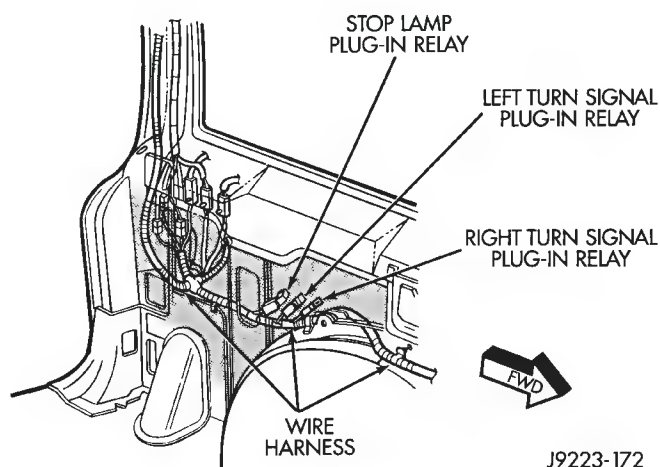
### HITCH REMOVAL—XJ VEHICLES

An XJ class III, weight-distributing/equalizer type hitch (Fig. 4) is comprised of:

- Towing tube with a ball mount receptacle.
- Various reinforcement/support brackets that are attached to the vehicle frame sills and rear crossmember with bolts.



**Fig. 4 Equalizer Type Hitch—XJ Vehicles**



**Fig. 3 Class III Trailer Tow Wire Harness Plug-In Relays**

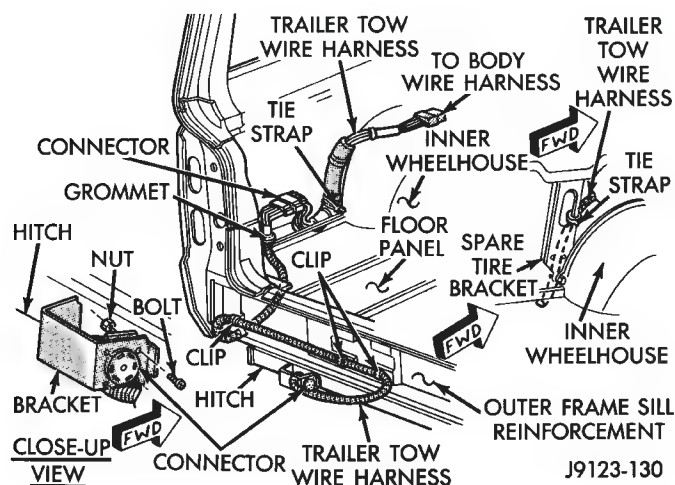
(1) If necessary, remove the trailer tow wire harness connector from the hitch (Fig. 5).

(2) Support the hitch.

(3) Remove the bolts that attach the towing tube to the frame sills and reinforcement bracket. If equipped, remove the fuel tank skid plate.

**The reinforcement brackets are held on the frame sills with two blind rivets.**

(4) Remove the bolts from the plate bracket and rear crossmember and lower the support and hitch.



**Fig. 5 Trailer Tow Wire Harness Connector**

### INSTALLATION—XJ VEHICLES

(1) Install frame reinforcement brackets, if removed. Slide the brackets through the vehicle rear sill openings and hold in position on the frame sills with blind rivets (Fig. 6).

(2) Place hitch on a lifting device. Raise, position hitch at the proper location for installation on vehicle and support it.

(3) If equipped, position fuel tank skid plate on vehicle frame sills.

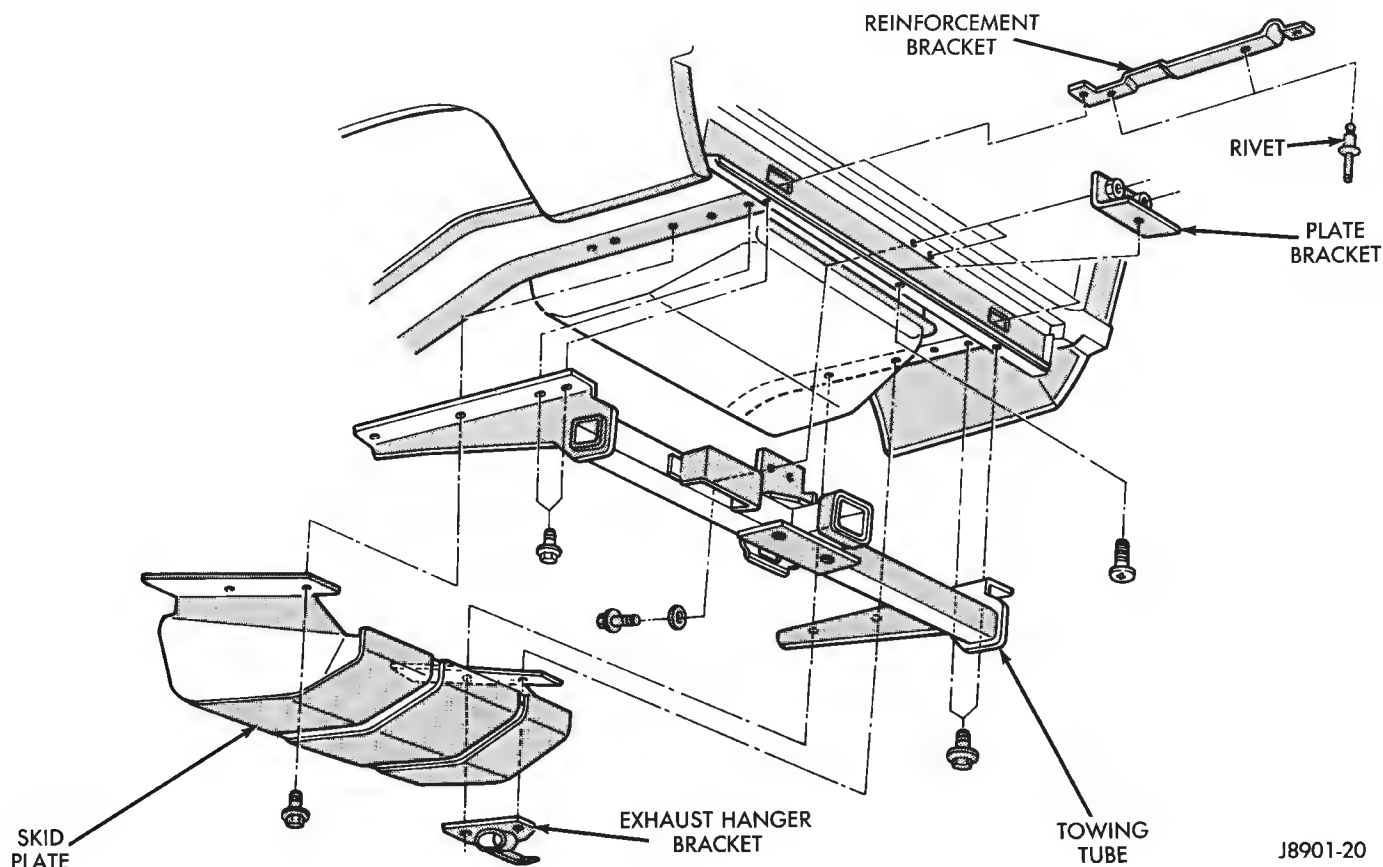
(4) Loosely install the bolts to attach the towing tube (and the skid plate) to frame sills and reinforcement brackets.

(5) Position the plate bracket and install the attaching bolts through the vehicle rear crossmember.

(6) Tighten all bolts/nuts to the specified torque:

- Towing tube-to-reinforcement bracket bolt, 50 N·m (37 ft. lbs.).
- Plate bracket-to-rear crossmember nut, 52 N·m (40 ft. lbs.).

(7) Remove the lift/support and, if removed, attach the trailer wire harness connector to the hitch.



**Fig. 6 Reinforcement Bracket and Hitch Installation**



## INTERIOR COMPONENTS

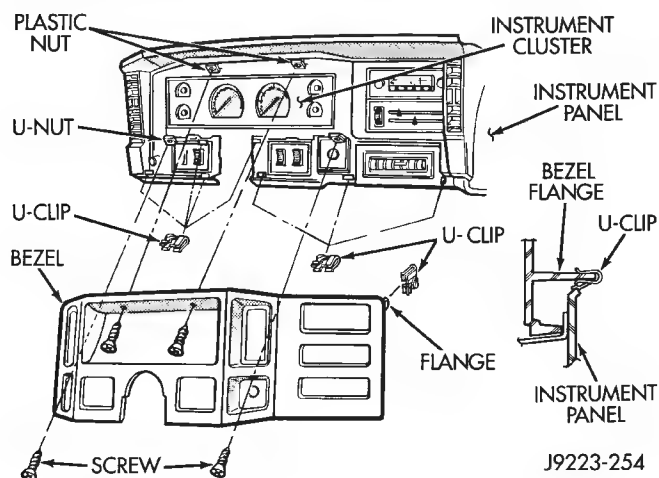
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### INSTRUMENT CLUSTER BEZEL—XJ

#### REMOVAL

- (1) Remove the bezel retaining screws (Fig. 1).



**Fig. 1 Instrument Bezel Removal/Installation**

- (2) Separate the bezel from the U-clips and remove it from the upper section of the instrument panel.
- (3) If necessary, remove or install rocker switch cover plates.

#### INSTALLATION

- (1) Position the bezel on the upper instrument panel and engage it with the U-clips.
- (2) Install the bezel retaining screws. Tighten the

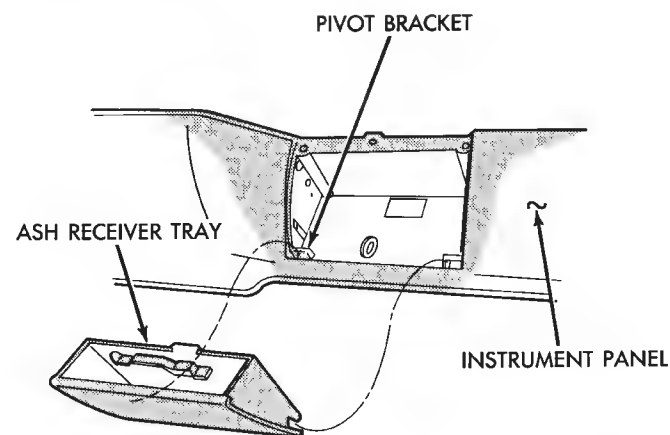
screws with 1 N·m (11 in-lbs) torque.

For service procedures regarding individual I/P components refer to Group 8, Electrical.

### I/P ASH RECEIVER TRAY LAMP—XJ

#### REMOVAL

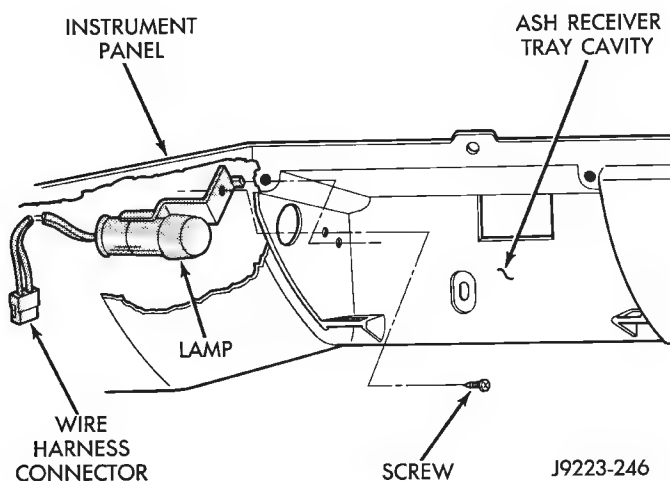
- (1) Remove the ash receiver tray from instrument panel (Fig. 2).



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**Fig. 2 Ash Receiver Tray**

- (2) Remove the lamp retaining screw from the ash receiver tray cavity (Fig. 3).
- (3) Disconnect the lamp wire harness connector and remove the lamp from the instrument panel.



**Fig. 3 Ash Receiver Tray Lamp**

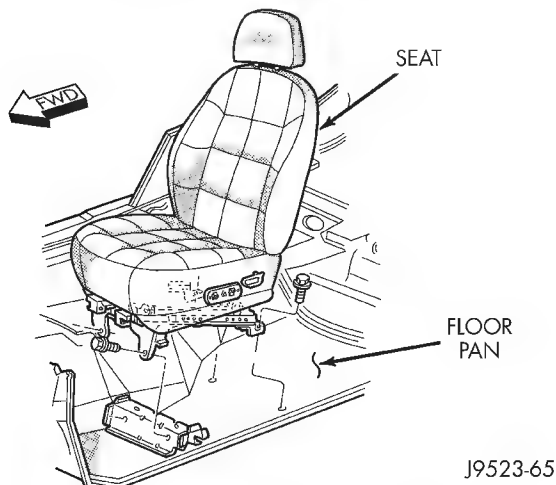
### INSTALLATION

- (1) Position the lamp under the instrument panel and connect the lamp wire harness connector.
- (2) Install the lamp retaining screw in the ash receiver tray cavity.
- (3) Install the ash receiver tray in the instrument panel.

### FRONT BUCKET SEATS—XJ

#### REMOVAL

Bucket seat platforms are attached to the floor panel with bolts (Fig. 1).



**Fig. 1 Bucket Seat**

- (1) Remove seat frame bolts.
- (2) For power seats, disconnect wire harness connector.
- (3) Separate seat from floor panel.

#### INSTALLATION

- (1) Position seat on floor panel.
- (2) Install seat frame bolts. Tighten to 32 N·m (24 ft-lbs) torque.

- (3) For power seats, connect wire harness connector.

### BUCKET SEAT CUSHION AND COVER—XJ

#### REMOVAL

- (1) Remove the seat from vehicle (Fig. 1). If necessary, refer to removal procedure.
- (2) Remove seat trim cover.
- (3) Remove wire support rod and rear carpet seat track cover, and flap retainer.
- (4) For power seats, remove control housing from seat cushion.
- (5) Undclip skirt from seat cushion and seat frame.
- (6) Remove seat cushion cover retaining screws and wire rods from cushion cover. Remove cover from cushion frame.

#### INSTALLATION

- (1) Install seat cushion cover on cushion frame. Install wire rods and retaining screws. Tighten screws to 2 N·m (13 in-lbs) torque.
- (2) Install cushion and retaining screws on seat frame.
- (3) Clip skirt onto seat cushion and seat frame.
- (4) For power seats, install control housing on seat cushion. Tighten screws to 2 N·m (13 in-lbs) torque.
- (5) Install rear carpet seat track cover and support rod and flap retainer.
- (6) Install seat trim cover and screws onto seat platform.
- (7) Install seat in vehicle (Fig. 1). If necessary, refer to removal procedure.

### BUCKET SEATBACK COVER AND FRAME—XJ

#### REMOVAL

- (1) Remove seat from vehicle. If necessary, refer to removal procedure.
- (2) Remove seat cushion from frame. If necessary, refer to removal procedure.
- (3) If equipped, remove headrest. Twist knob under headrest and pull up and out of cylinders in seatback.
- (4) Remove headrest latch release lever bezel from seatback.
- (5) Squeeze plastic retainers together. Detach lower flap from front of cover.
- (6) Remove cover retainer clips and remove cover from seatback.
- (7) For power seats, remove retaining screws and remove the seat control from seat track/platform.
- (8) Remove retaining screws and nuts. Remove seat frame from seat track/platform.

#### INSTALLATION

- (1) Position seat frame on seat track/platform. Install retaining screws and nuts.

(2) For power seats, position seat control on seat track/platform. Install retaining screws. Tighten screws securely.

(3) Position cover on seatback. Install cover retainer clips.

(4) Attach cover bottom elastic band or attach Velcro flap to front of cover.

(5) Install seatback insert.

(6) Install headrest latch release lever bezel.

(7) Install headrest by pushing it down into seatback cylinders.

(8) Install cushion on frame. If necessary, refer to installation procedure.

(9) Install seat in the vehicle. If necessary, refer to the installation procedure.

(10) For power seats, test seat operation.

## BUCKET SEAT PLATFORM—XJ

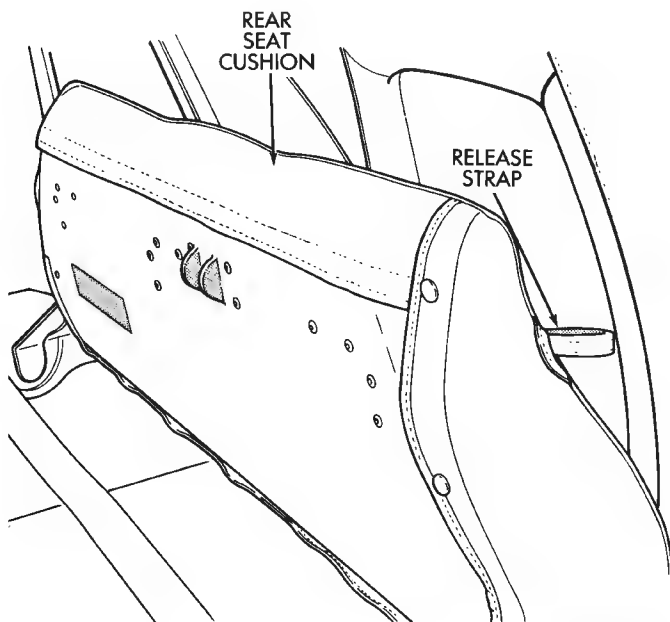
### REPLACEMENT

Bucket seat platforms are not repairable. If the seat platform is damaged, replace platform as a unit.

## REAR SEAT CUSHION—XJ

### REMOVAL

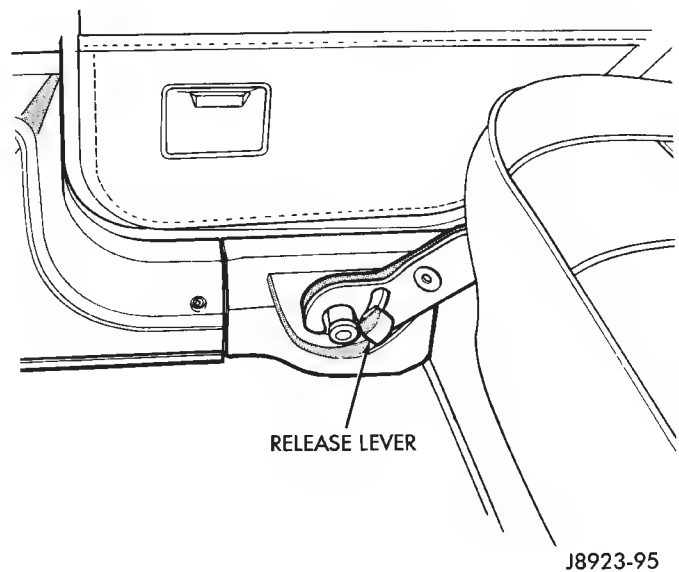
(1) Disengage the seat cushion at the rear by pulling upward on the release strap (Fig. 1).



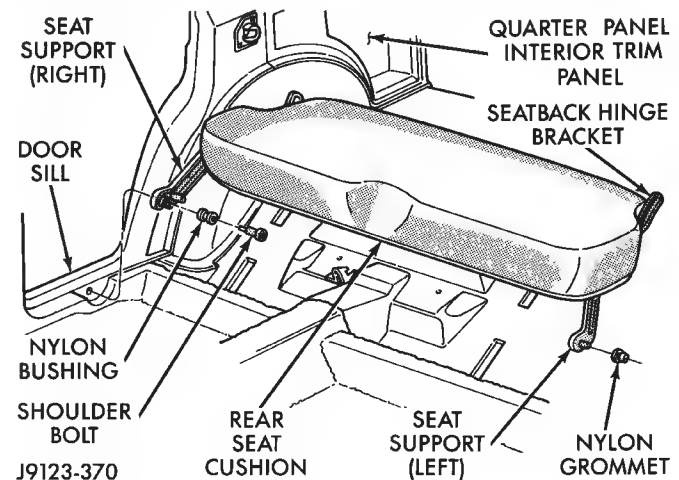
**Fig. 1 Seat Cushion Disengagement At Rear**

(2) Tilt the seat cushion forward.

(3) Disengage the seat cushion latch with the release lever (Fig. 2 and 3). Separate the right side latch and then the left side seat bracket from the floor anchor bolts, and remove the cushion from the vehicle.



**Fig. 2 Seat Cushion Disengagement At Front**



**Fig. 3 Rear Seat Cushion Removal/Installation**

### INSTALLATION

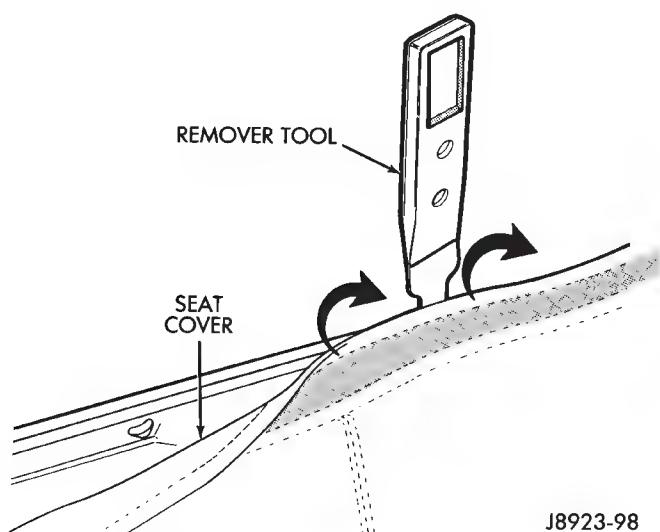
- (1) Position the seat cushion in the vehicle (Fig. 3).
- (2) Insert the left pivot in the anchor grommet.
- (3) Force the right side latch onto the anchor bolt and pivot the seat cushion to the horizontal position.
- (4) Lock the seat cushion in-place by pressing firmly on the center of the cushion until the latch engages.

## REAR SEAT CUSHION COVER—XJ

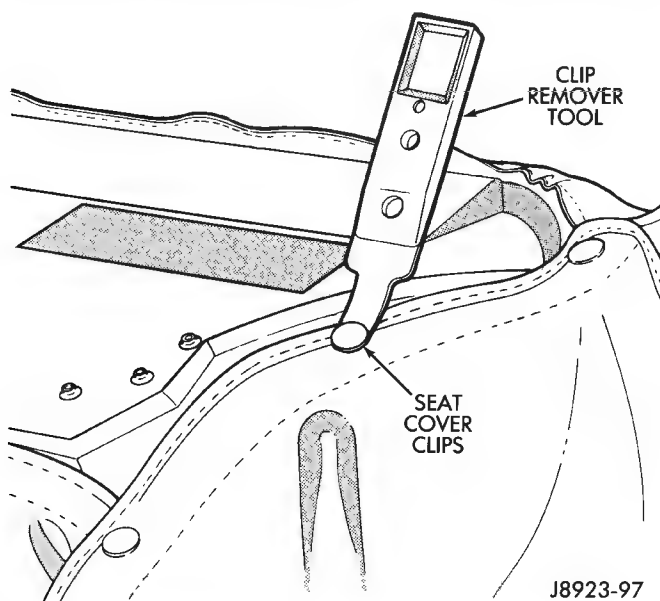
### REMOVAL

- (1) Remove the seat cushion from the vehicle.
- (2) Remove the cover side, front and rear retaining clips from the wire retainers with an appropriate removal tool (Fig. 4).
- (3) Remove the serrated retainers from the front ends of the cover with a trim panel removal tool (Fig. 5).
- (4) Remove the seat cover from the cushion.





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**Fig. 4 Seat Cushion Cover Retaining Clip Removal**

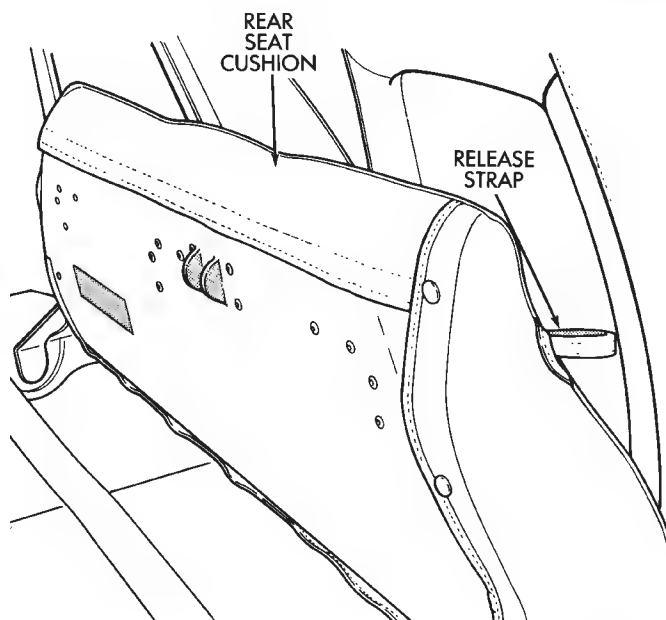
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**Fig. 5 Seat Cushion Cover Retaining Clip Removal****INSTALLATION**

- (1) Position the replacement cover on the cushion.
- (2) Compress the cover and attach the retaining clips to the front and rear wire retainers.
- (3) Install the serrated retainers at the ends of the cover.
- (4) Install the seat cushion in the vehicle. If necessary, refer to the installation procedure.

**REAR SEATBACK—XJ****REMOVAL**

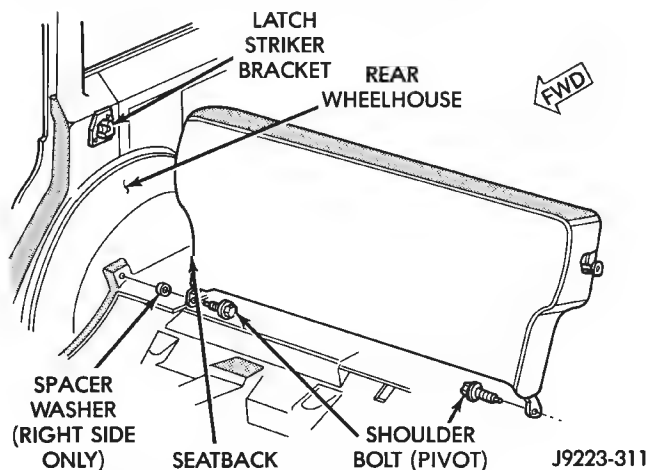
- (1) Disengage the seat cushion at the rear by pulling upward on the release strap (Fig. 6)
- (2) Tilt the seat cushion forward.
- (3) Remove the shoulder/lap belt buckles from the elastic straps.



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**Fig. 6 Seat Cushion Disengagement**

- (4) Release the seatback latch from the striker.
- (5) Remove the pivot bolts and the washers from the wheelhouse panel anchors (Fig. 7).



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**Fig. 7 Rear Seatback Removal/Installation**

- (6) Tilt the seatback forward, lift it upward and remove it from the vehicle.

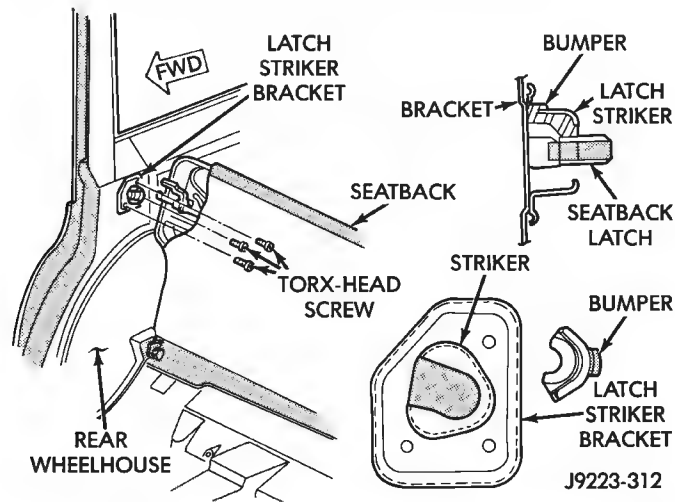
**INSTALLATION**

- (1) Position the seatback in the vehicle.
- (2) Install the pivot bolts and the washer—right side only. Tighten the bolts with 45 N·m (33 ft-lbs) torque.
- (3) Engage the seatback latch with the striker.
- (4) Insert the shoulder/lap belt buckles in the elastic straps.
- (5) Pivot the seat cushion to the horizontal position and lock it in-place by pressing firmly on the center of the cushion until the latch engages.

## REAR SEATBACK LATCH STRIKER AND BUMPER—XJ

### REMOVAL

- (1) Disengage the seat cushion at the rear by pulling upward on the release strap.
- (2) Tilt the seat cushion forward.
- (3) Release the seatback latch from the striker.
- (4) Tilt the seatback forward for access to the striker bracket.
- (5) Remove the retaining screws and the latch striker bracket from the trim panel (Fig. 8).



**Fig. 8 Seatback Latch Striker Bracket Removal/Installation**

### INSTALLATION

- (1) Position the latch striker bracket on the trim panel and install the retaining screws. Tighten the screws with 6 N·m (50 in-lbs) torque.
- (2) Engage the seatback latch with the striker.
- (3) Pivot the seat cushion to the horizontal position and lock the it in-place by pressing firmly on the center of the cushion until the latch engages.

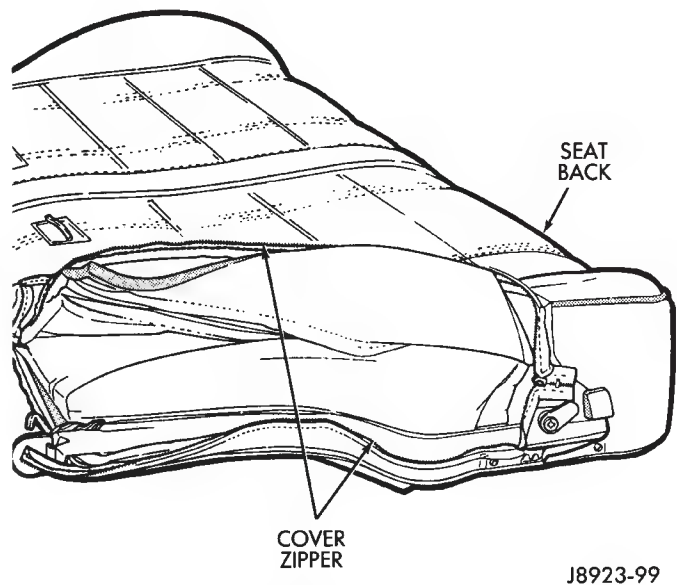
## REAR SEATBACK COVER—XJ

### REMOVAL

- (1) Remove the seatback from the vehicle.
- (2) Remove the seatback latch release handle and bezel from the seatback.
- (3) Disengage the cover zipper and J-rail retainer. Remove the cover from the seatback pad (Fig. 9).

### INSTALLATION

- (1) Install the replacement cover on the seatback.
- (2) Attach the cover J-rail retainer clip to the frame/panel edge and engage the cover zipper.
- (3) Install the seat latch release bezel and handle on the cover and pad.
- (4) Install the seatback in the vehicle.

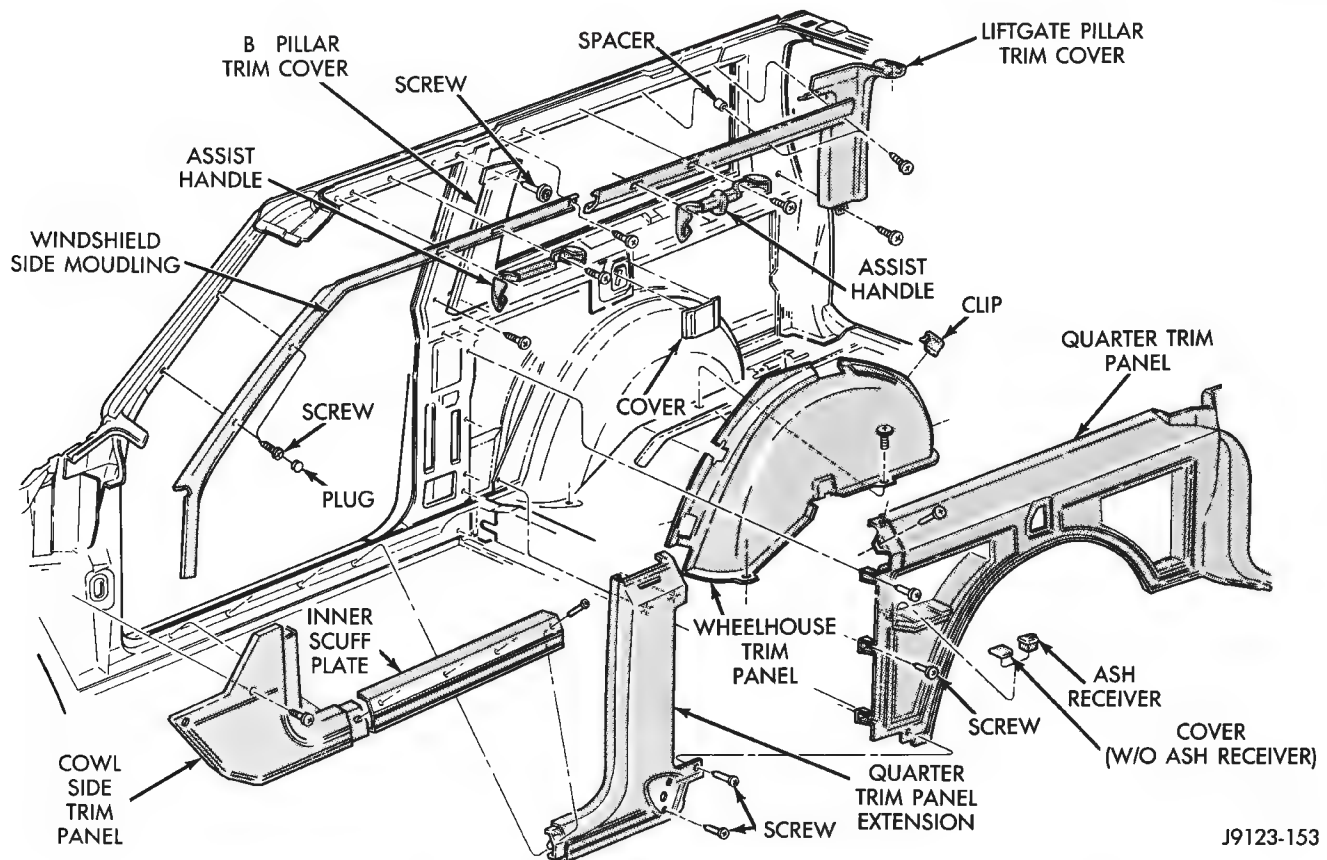


**Fig. 9 Seatback Cover Removal**

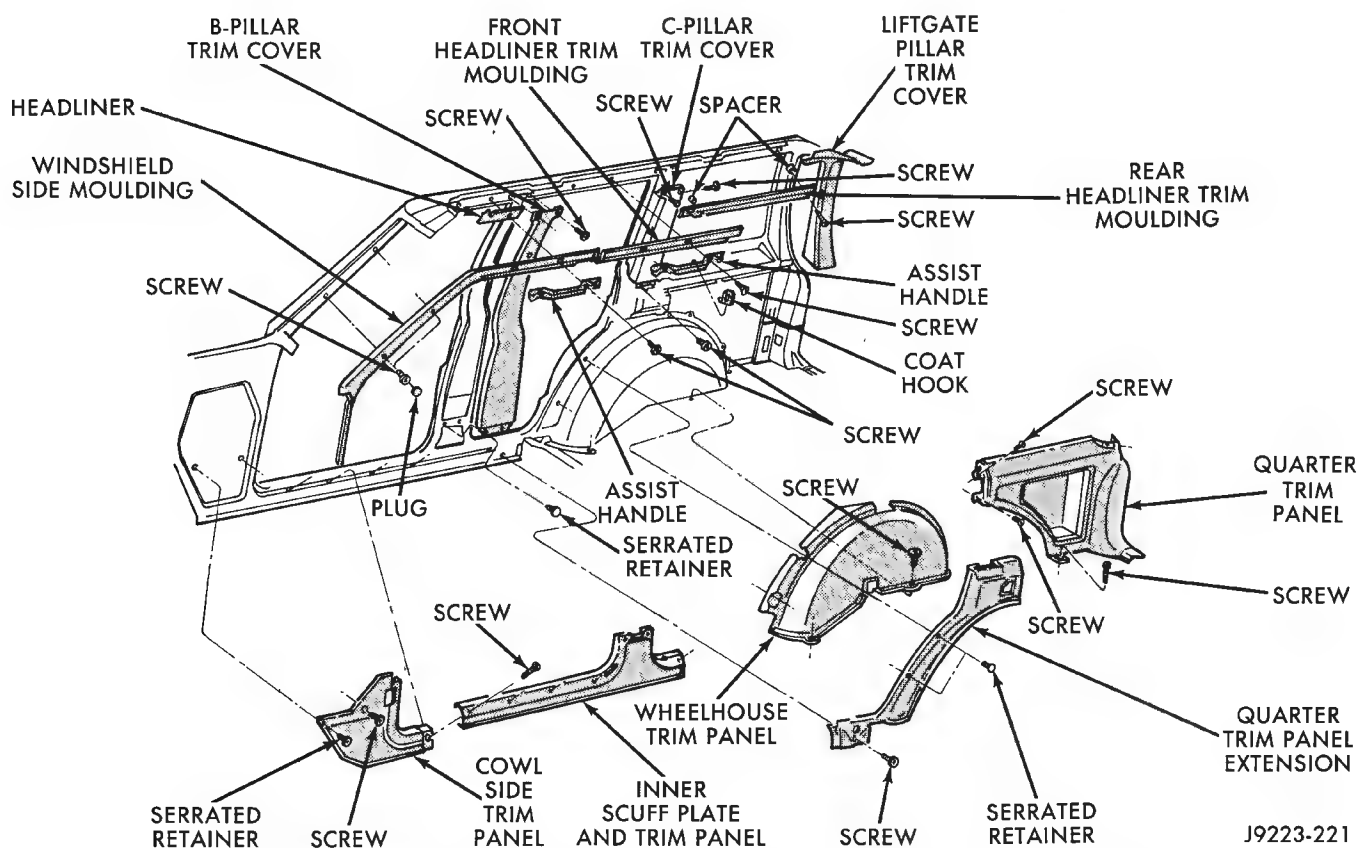
## INTERIOR TRIM PANELS AND SCUFF PLATES—XJ

The XJ interior trim panels, moldings and inner scuff plate are illustrated in Figures 1 and 2. Most of the components are attached with either push-in screws or Phillips-head screws. Retainer clips are used to attach the rear quarter trim panels.

**CAUTION:** Do not remove trim panels/moldings without first removing the overlapping panels, interior lamps, and other components. To avoid damaging the panels, ensure that all the screws and clips are removed before attempting to remove a trim panel/molding.



**Fig. 1 Interior Trim Panels/Moldings/Scuff Plate—XJ 2-Door Vehicles**



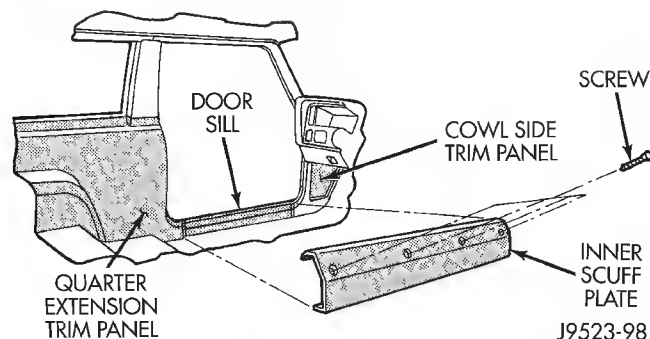
**Fig. 2 Interior Trim Panels/Moldings/Scuff Plate—XJ 4-Door Vehicles**



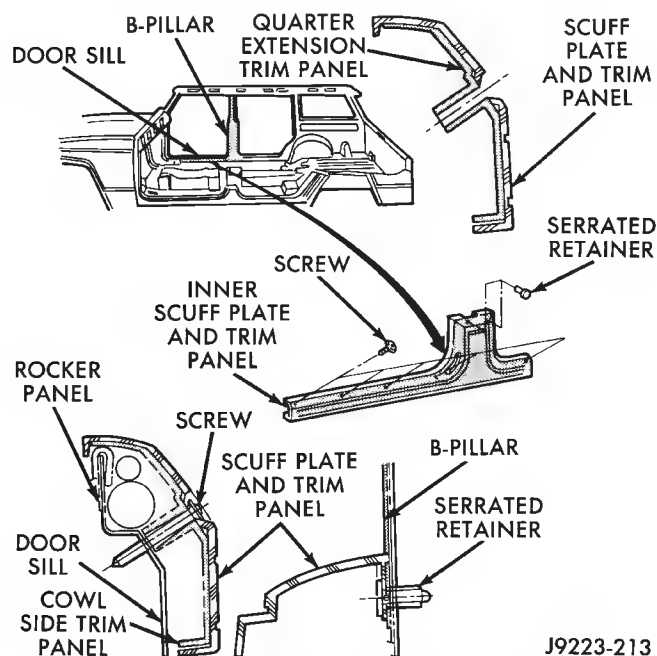
## FRONT INNER SCUFF PLATE/COWL SIDE TRIM PANEL—XJ

### REMOVAL

(1) Remove the retaining screws and the inner scuff plate from the front door sill (Fig. 3 and 4).



**Fig. 3 Front Inner Scuff Plate—2-Door Vehicles**



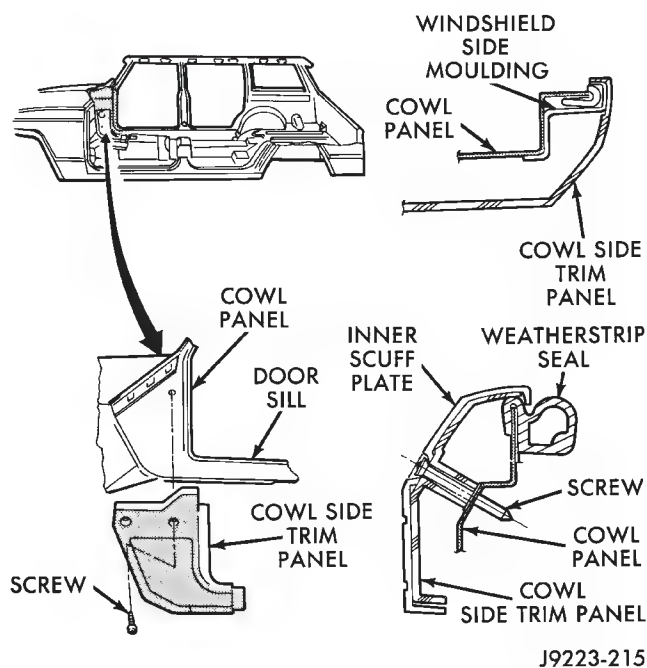
**Fig. 4 Front Inner Scuff Plate—4-Door Vehicles**

(2) Remove the retaining screws and cowl side trim panel from the cowl side panel (Fig. 5).

### INSTALLATION

(1) Position the cowl side trim panel on the cowl side panel and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(2) Position the inner scuff plate on the front door sill and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.



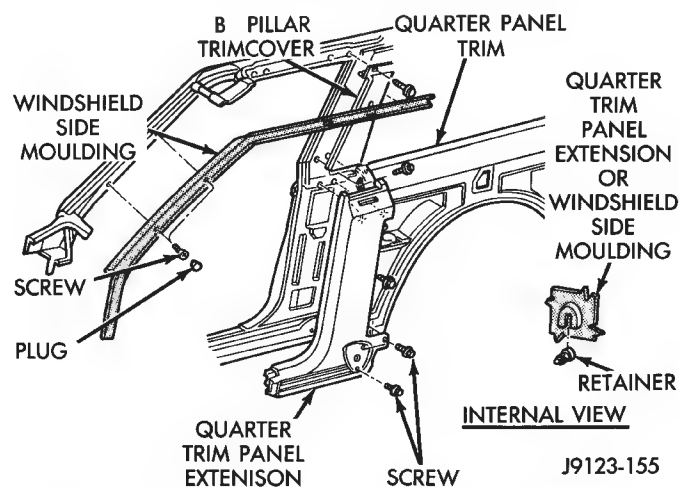
**Fig. 5 Cowl Side Trim Panel**

## WINDSHIELD SIDE MOLDING—XJ

### REMOVAL

(1) Remove the retaining screws and the inner scuff plate, cowl side trim panel and headliner front trim molding from the interior of the vehicle.

(2) Remove the retaining screws and the windshield side molding from the A-pillar and door header (Fig. 6).



**Fig. 6 Windshield Side Molding, Quarter Trim and Extension Panels**

### INSTALLATION

(1) Position the windshield side molding on the A-pillar and door header. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

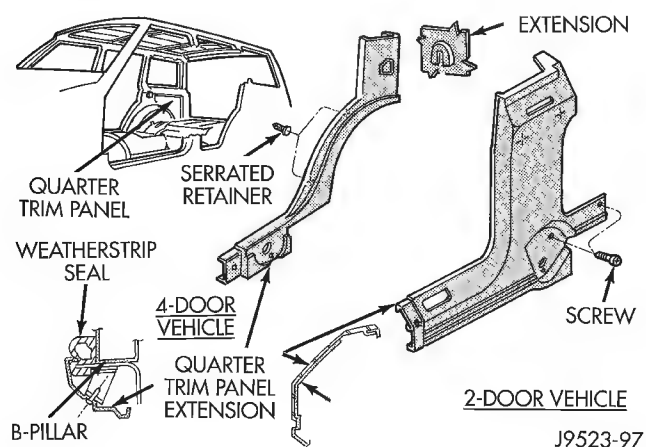
(2) Install the headliner front trim molding, the cowl side trim panel and the inner scuff plate in the interior of the vehicle. Tighten the retaining screw to 1 N·m (11 in-lbs) torque.

## QUARTER TRIM PANEL EXTENSION—XJ

### REMOVAL

(1) Remove the retaining screws and the inner scuff plate from the door sill.

(2) Remove the retaining screws and serrated retainers, and remove the panel extension from the wheelhouse and quarter trim panels (Fig. 7).



**Fig. 7 Quarter Trim Panel Extension**

### INSTALLATION

(1) Position the quarter trim panel extension on the wheelhouse and quarter trim panels. Install the serrated retainers and retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(2) Position the inner scuff plate on the door sill. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

## QUARTER AND WHEELHOUSE TRIM PANELS—XJ

### REMOVAL

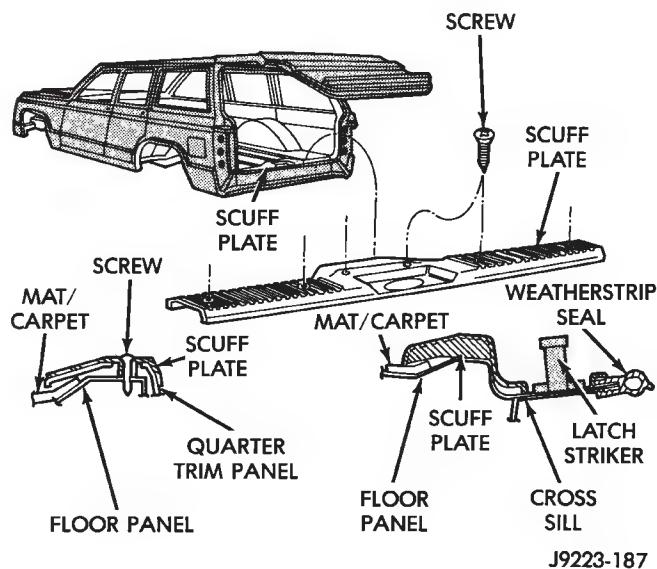
(1) Remove the retaining screws and the inner scuff plate from the door sill.

(2) Remove the retaining screws and serrated retainers, and remove the panel extension from the wheelhouse and quarter trim panels.

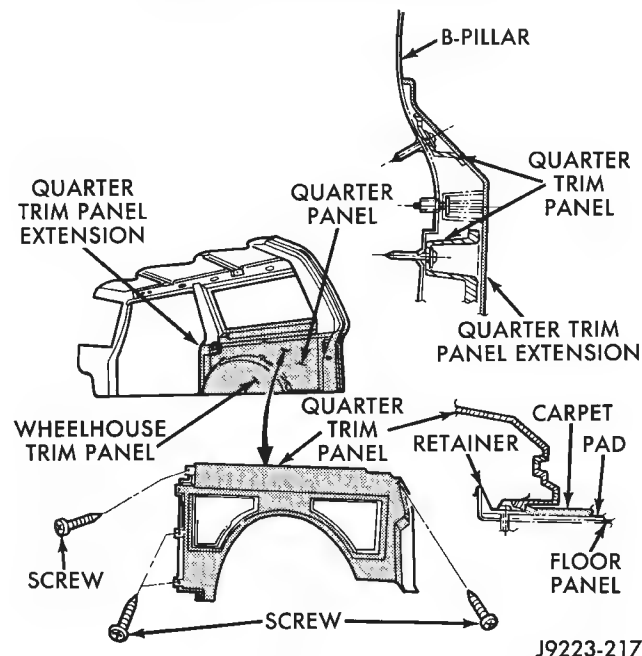
(3) Remove the retaining screws, and the liftgate scuff plate and latch striker from the carpet and cross sill (Fig. 8).

(4) Remove the retaining screws and the quarter trim panel from the quarter panel and wheelhouse trim panel (Fig. 9 and 10).

(5) If necessary, remove the retaining screws and the tire stand-off from the left quarter trim panel (Fig. 11).



**Fig. 8 Liftgate Scuff Plate**



**Fig. 9 Quarter Trim Panel—2-Door Vehicles**

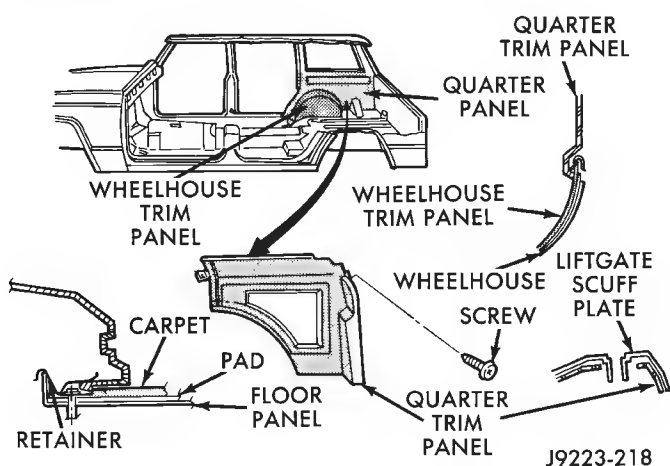
(6) If necessary, remove the ash receiver/cover plate from the quarter trim panel.

(7) Remove the retaining screws and U-dip retainers, and remove the wheelhouse trim panel from the quarter panel.

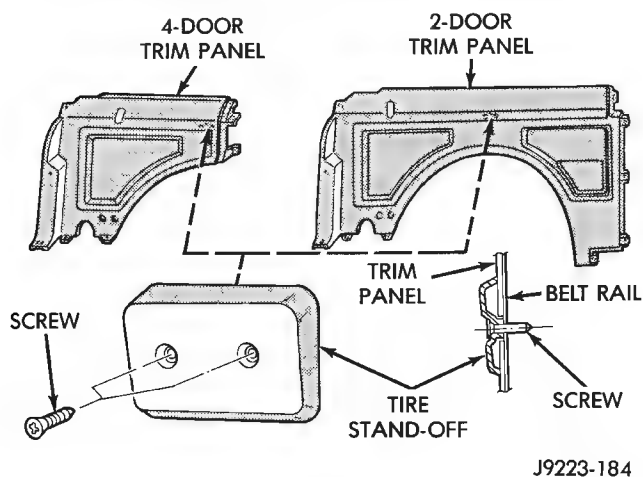
### INSTALLATION

(1) Position the wheelhouse trim panel on the quarter panel and install the retaining screws and U-dip retainers. Tighten the screws to 1 N·m (11 in-lbs) torque.

(2) If removed, install the tire stand-off on the left quarter trim panel. Tighten the retaining screws to 1 N·m (11 in-lbs) torque.



**Fig. 10 Quarter Trim Panel—4-Door Vehicles**



**Fig. 11 Tire Stand-Off—Left Quarter Trim Panel**

(3) If removed, install the ash receiver/cover plate on the quarter trim panel.

(4) Position the quarter trim panel on the quarter panel and wheelhouse trim panel. Install and tighten the retaining screws to 1 N·m (11 in-lbs) torque.

(5) Position scuff plate and latch striker on the carpet and cross sill, and install the retaining screws. Tighten the scuff plate screws to 1 N·m (11 in-lbs) torque. Tighten the latch striker screws to 30 N·m (22 ft-lbs) torque.

(6) Position the quarter trim panel extension on the wheelhouse and quarter trim panels. Install the serrated retainers and retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(7) Position the inner scuff plate on the door sill. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

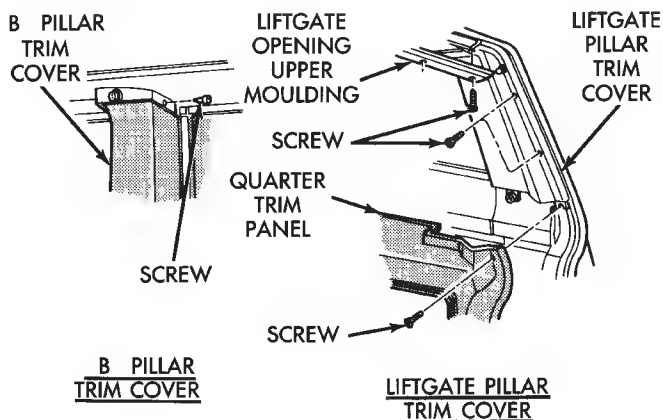
## B/C-PILLAR AND LIFTGATE PILLAR TRIM COVERS—XJ

### REMOVAL

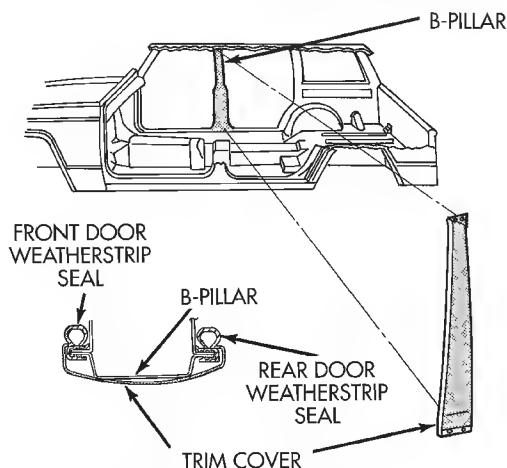
(1) Remove the retaining screws and the inner scuff plate from the door sill.

(2) Remove the cowl side trim panel, the headliner trim molding and the windshield side molding from the interior of the vehicle (Fig. 12).

(3) For 4-door vehicles, remove the retaining screws and remove the trim cover from the B-pillar (Fig. 13).



**Fig. 12 B-Pillar and Liftgate Pillar Trim Covers**



**Fig. 13 B-Pillar Trim Cover—4-Door Vehicles**

(4) Remove the retaining screws and serrated retainers, and remove the panel extension from the wheelhouse and quarter trim panels.

(5) For 2-door vehicles, remove the retaining screws and remove the trim cover from the B-pillar (Fig. 14).

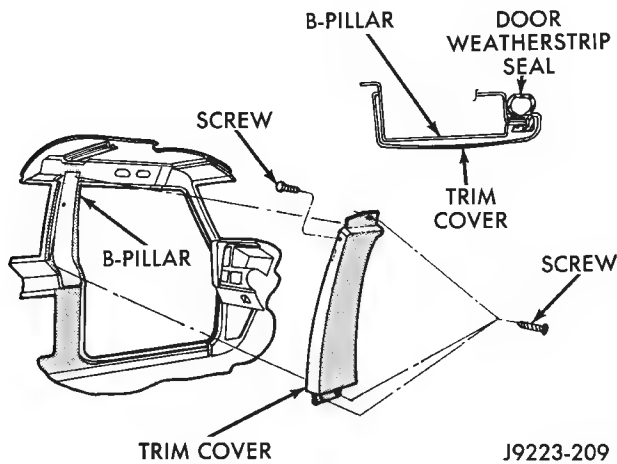
(6) For 4-door vehicles, remove the retaining screws and remove the trim cover from the C-pillar (Fig. 15).

(7) Remove the retaining screws, and the liftgate scuff plate and latch striker from the carpet and cross sill.

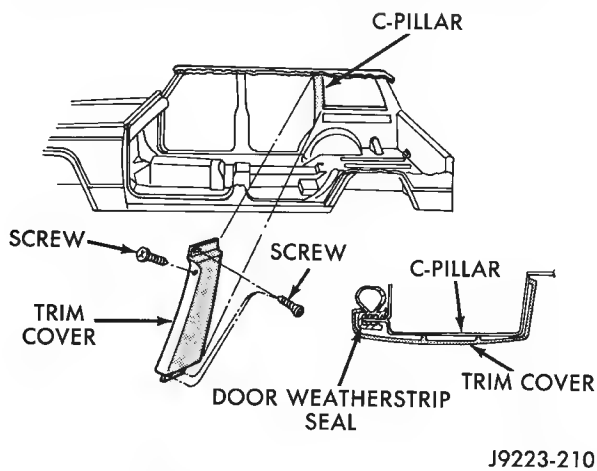
(8) Remove the retaining screws and the quarter trim panel from the quarter panel and wheelhouse trim panel.

(9) Remove the retaining screws and the liftgate upper trim molding from the liftgate header.





**Fig. 14 B-Pillar Trim Cover—2-Door Vehicles**



**Fig. 15 C-Pillar Trim Cover—4-Door Vehicles**

(10) Remove the retaining screws and the trim cover from the liftgate pillar (Fig. 16).

### INSTALLATION

(1) Position the trim cover on the liftgate pillar and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

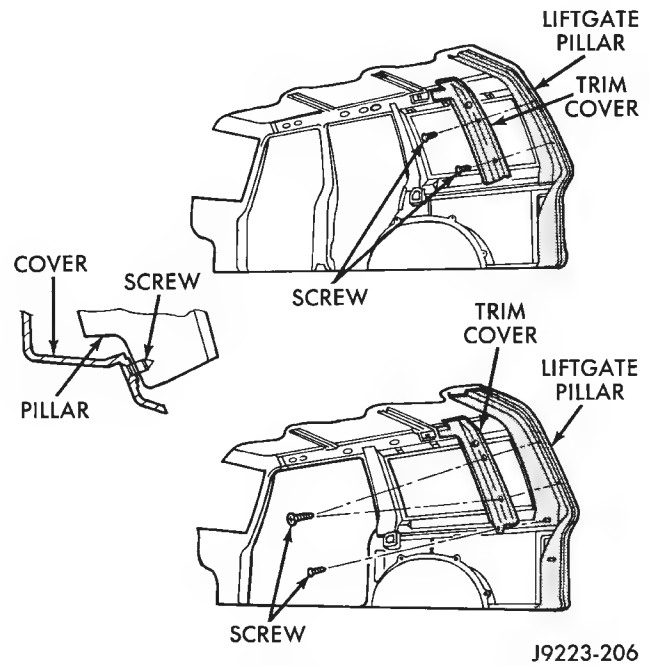
(2) Position the upper trim molding on the liftgate header and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(3) Position the quarter trim panel on the quarter panel and wheelhouse trim panel. Install and tighten the retaining screws to 1 N·m (11 in-lbs) torque.

(4) Position the scuff plate and latch striker on the carpet and cross sill, and install the retaining screws. Tighten the scuff plate screws to 1 N·m (11 in-lbs) torque. Tighten the latch striker screws to 30 N·m (22 ft-lbs) torque.

(5) For 4-door vehicles, position the trim cover on the C-pillar and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(6) For 2-door vehicles, position the trim cover on the B-pillar and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.



**Fig. 16 Liftgate Pillar Trim Cover**

(7) Position the quarter trim panel extension on the wheelhouse and quarter trim panels. Install the serrated retainers and retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.

(8) For 4-door vehicles, position the trim cover on the B-pillar. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

(9) Install the windshield side molding, the headliner trim molding and the cowl side trim panel in the interior of the vehicle. Tighten the screws to 1 N·m (11 in-lbs) torque.

(10) Position the inner scuff plate on the door sill. Install the retaining screws and tighten to 1 N·m (11 in-lbs) torque.

### OUTER SCUFF PLATES—XJ

#### REMOVAL/INSTALLATION

The door sill outer and the liftgate scuff plates are attached to the sills with screws (Fig. 17 and 18). Refer to Liftgate for latch striker information.

### ASSIST HANDLE—XJ

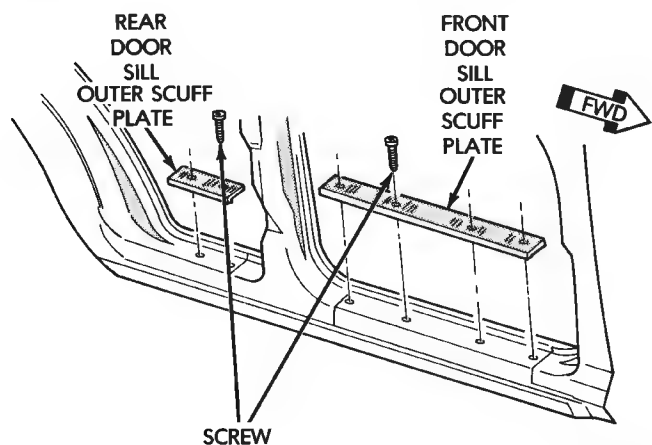
XJ assist handles are attached to the:

- Windshield side trim molding.
- A-pillar and door header trim molding.
- Upper (headliner) trim moldings with screws that concealed by the handle end covers (Fig. 19).

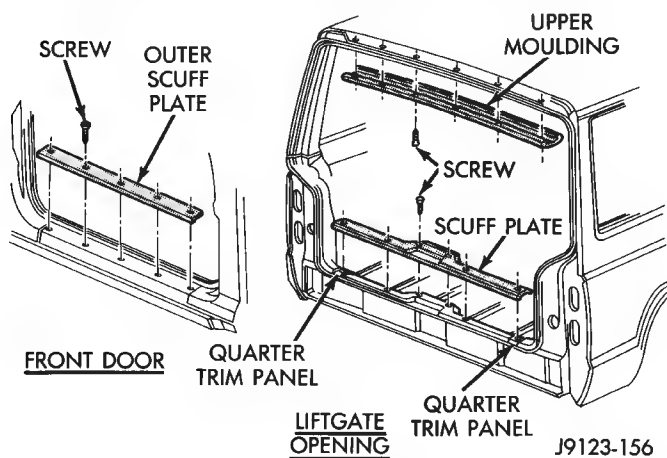
#### REMOVAL

(1) Open the end covers that conceal the assist handle retaining screws.

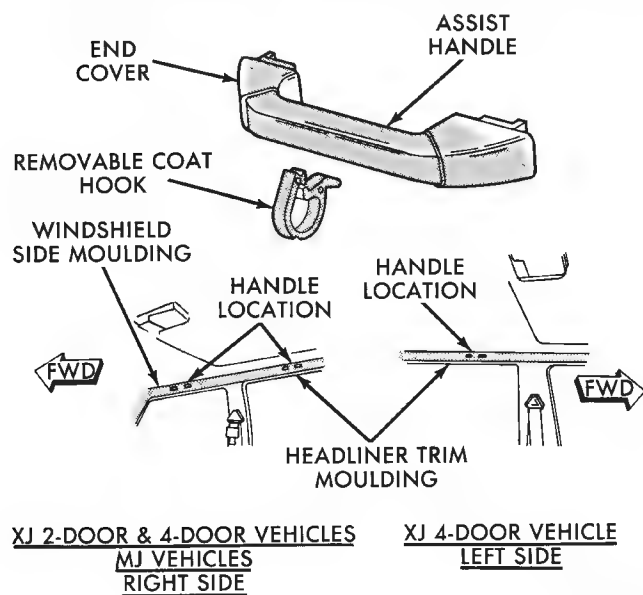
(2) Remove the handle retaining screws.



J9123-468

**Fig. 17 Outer Scuff Plates—4-Door Vehicles**

J9123-156

**Fig. 18 Liftgate and Door Sill Outer Scuff Plate**

XJ 2-DOOR & 4-DOOR VEHICLES  
MJ VEHICLES  
RIGHT SIDE

XJ 4-DOOR VEHICLE  
LEFT SIDE

J9223-205

**Fig. 19 Assist Handles—XJ Vehicles**

(3) Remove the assist handle from the trim molding.

**INSTALLATION**

(1) Position the handle on the trim molding and install the retaining screws. Tighten the retaining screws to 3 N·m (22 in-lbs) torque.

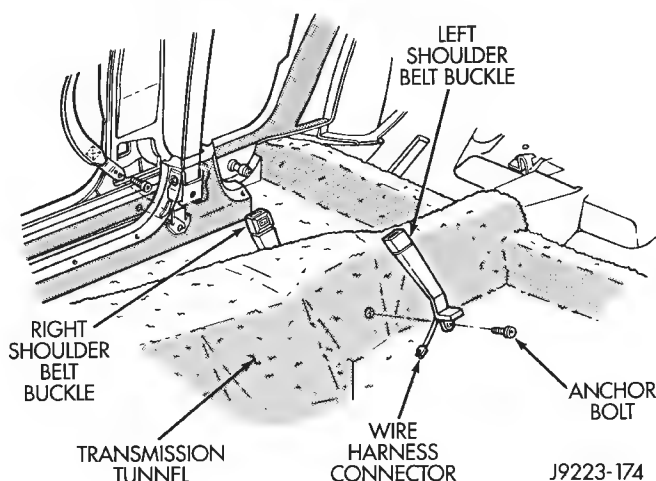
(2) Install the covers over the retaining screws.

**FRONT SHOULDER BELT/BUCKLE—XJ****REMOVAL**

(1) Slide the front seats all the way forward for access to the belt anchor bolt.

(2) Disconnect the belt wire harness connector (Fig. 1).

(3) Remove the anchor bolt cover.



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**Fig. 1 Front Shoulder Belt Buckles**

(4) Remove the shoulder belt buckle anchor bolt with a Torx bit.

(5) Remove the shoulder belt buckle from the transmission tunnel.

(6) Remove the cap concealing the shoulder belt upper anchor bolt (Fig. 2 and 3).

(7) Use a Torx bit to remove the upper anchor bolt. Remove the support/guide washer.

(8) Remove the inner scuff plate/trim panel from the door sill and remove the shoulder belt lower anchor bolt(s) with a Torx bit.

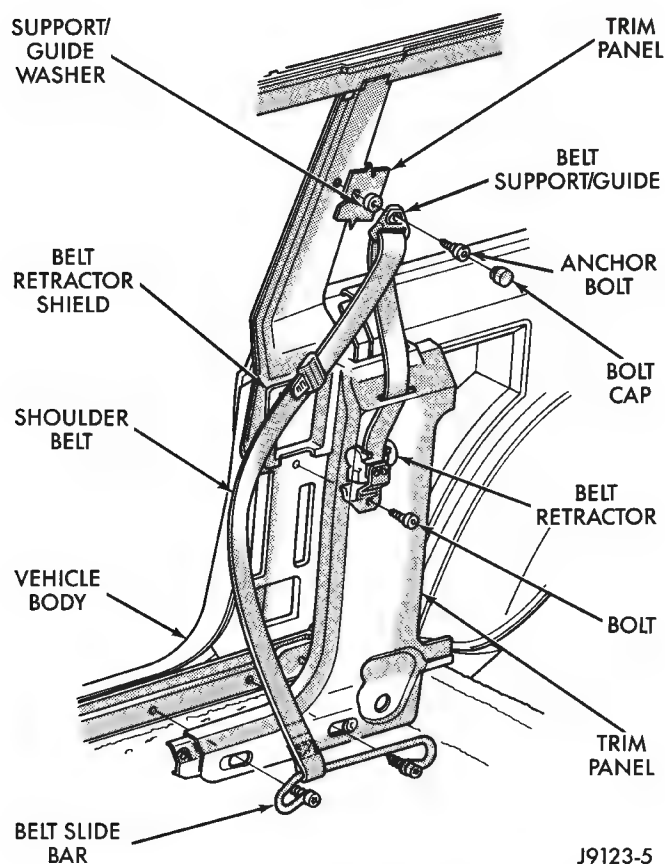
(9) Remove the shoulder belt and the retractor.

**INSPECTION**

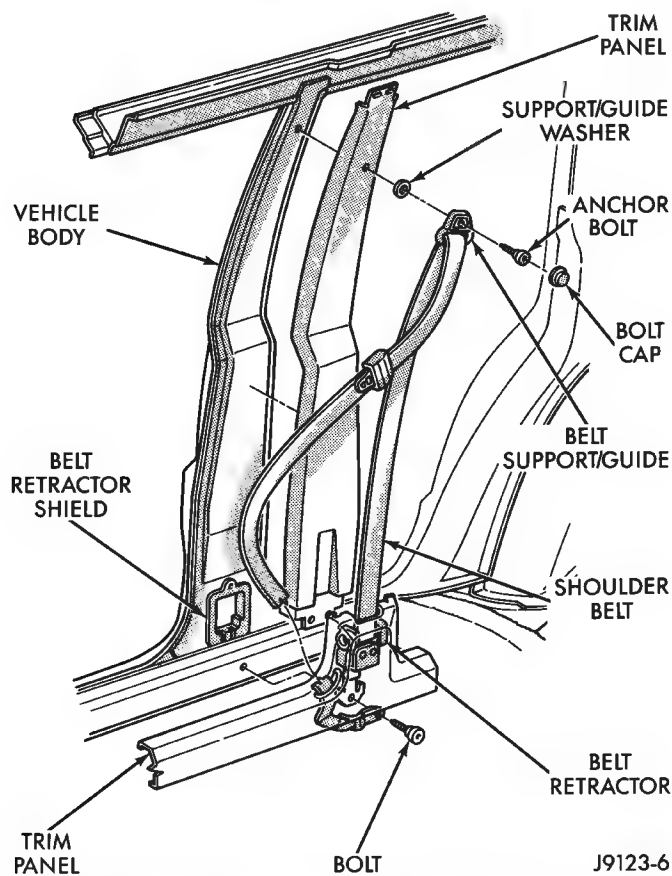
Inspect the front shoulder belts and buckles. Replace any belt that is either cut, frayed, torn or damaged in any way. Replace the shoulder belt if the retractor is damaged or inoperative.

**INSTALLATION**

(1) Position the shoulder belt retractor in the shield and install the lower anchor bolt with a Torx bit.



**Fig. 2 Front Shoulder Belt—2-Door Vehicles**



**Fig. 3 Front Shoulder Belt—4-Door Vehicles**

(2) Position the support/guide washer and shoulder belt upper anchor plate on the trim panel. Install the upper anchor bolt with a Torx bit.

(3) Tighten the upper and lower anchor bolts to 41 N·m (30 ft-lbs) torque.

(4) Install the door sill inner scuff plate/trim panel and install the cap over the upper anchor bolt.

(5) Install the shoulder belt buckle and anchor bolt. Connect the wire harness connectors. Tighten the buckle anchor bolt to 41 N·m (30 ft-lbs) torque.

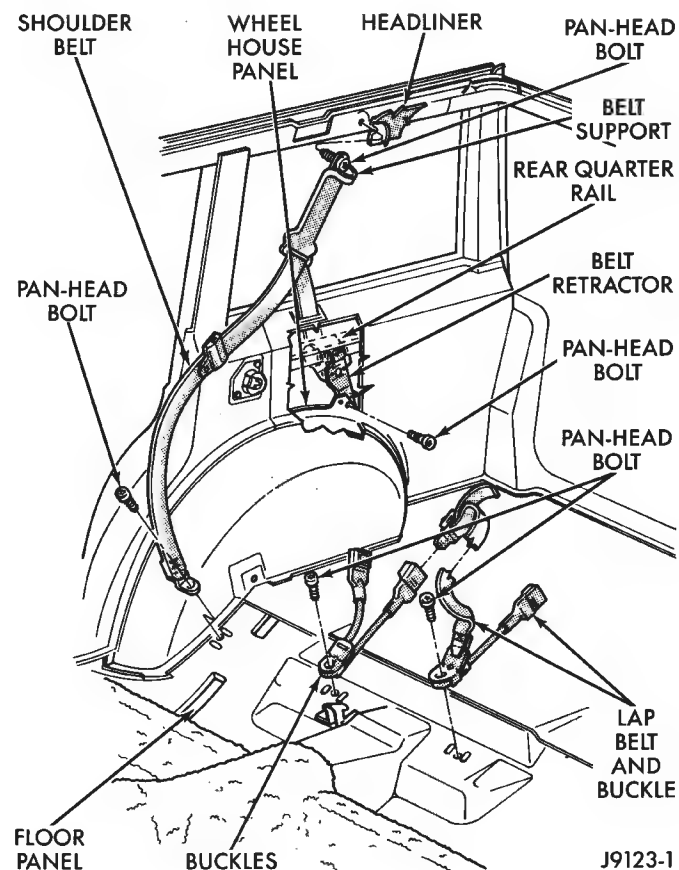
(6) Position the cover over the anchor bolt.

## REAR SHOULDER/LAP BELT/BUCKLE—XJ

### REMOVAL

(1) Pull the rear seat release strap and tilt the complete seat forward.

(2) Remove the shoulder belt buckle and lap belt/buckle anchor plate bolts from the floor panel (Fig. 4).



**Fig. 4 Rear Seat Shoulder/Lap Belts and Buckles**

(3) Remove the shoulder belt lower anchor bolt.

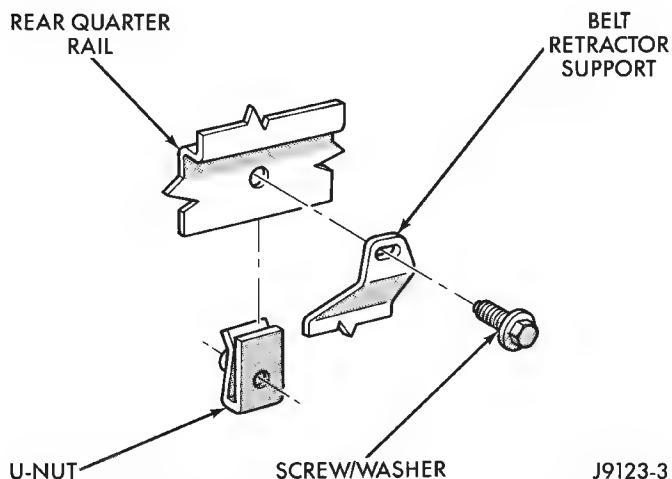
(4) Remove the quarter trim panel. If necessary, refer to the removal procedure.

(5) Remove the shoulder belt upper anchor bolt.

(6) Remove the belt retractor support retaining screw from the rear quarter rail (Fig. 5).

(7) Remove the retractor and shoulder belt from the trim panel.





**Fig. 5 Shoulder Belt Retractor Support Removal/Installation**

### INSPECTION

Inspect the rear shoulder/lap belts and buckles. Replace any belt that is either cut, frayed, torn or damaged in any way. Replace the shoulder belt if the retractor is damaged or inoperative.

### INSTALLATION

- (1) Position the shoulder belt buckle and the lap belt/buckle anchor plates on the floor panel.
- (2) Install the anchor bolts. Tighten the bolts to 37 N·m (27 ft-lbs) torque.
- (3) Position the shoulder belt at the roof rail and install the upper anchor bolt. Tighten the bolt to 37 N·m (27 ft-lbs) torque.
- (4) Route the shoulder belt through the quarter trim panel slot. Install the retractor support on the rear quarter rail. Tighten the screw to 5 N·m (45 in-lbs) torque.
- (5) Install the quarter trim panel.
- (6) Install the shoulder belt lower anchor bolt. Tighten the bolt to 37 N·m (27 ft-lbs) torque.
- (7) Return the rear seat to the normal position and engage the latch.

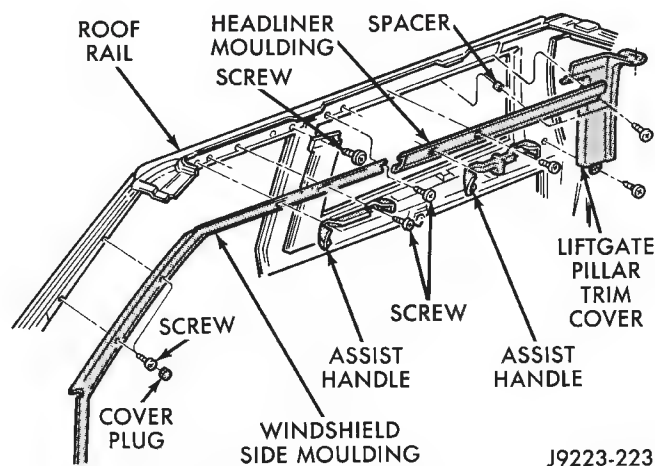
### HEADLINER—XJ

The upper trim moldings and the headliner are attached to the roof rail with a combination of screws, velcro strips, clip retainers and rail retainers (Fig. 1).

To remove a headliner, all of the upper trim moldings must be removed from the perimeter of the headliner along with (as applicable):

- Assist handles.
- Sunvisors.
- Dome/cargo lamps.
- Overhead console.
- Keyless entry receiver module.
- Sound bar.
- All other attached/overlapping components.

Refer to the appropriate removal and installation procedure locate in this section or in Group 8, Electrical.

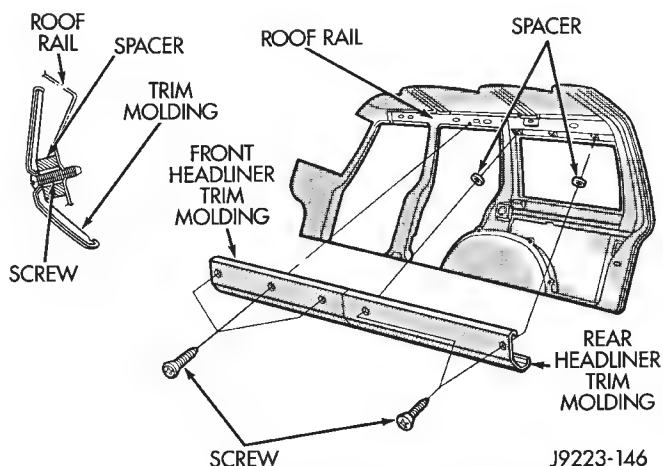


**Fig. 1 Headliner Trim Moldings**

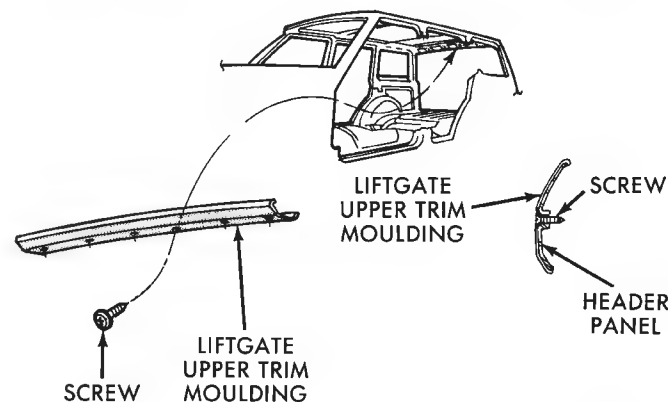
### REMOVAL

**CAUTION:** The headliner is a one-piece, molded component. It has limited flexibility and must not be bent during removal/installation.

- (1) Remove the upper trim moldings from the perimeter of the headliner (Fig. 2 and 3).



**Fig. 2 Upper Trim Molding—4-Door XJ Vehicles**

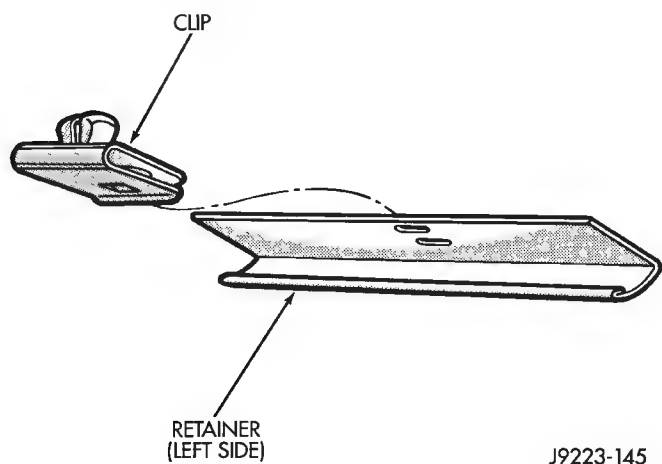


**Fig. 3 Liftgate Trim Molding**

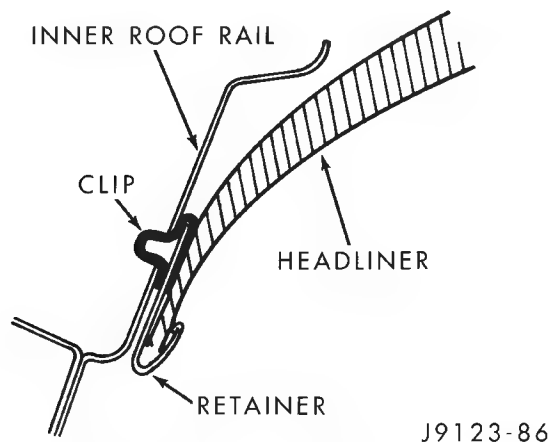
(2) Ensure that all the retainer clips, screws and Velcro strips are disengaged before removing the headliner.

### HEADLINER INSTALLATION

(1) When installing a headliner, ensure that the retainer clips and rails are installed (Fig. 4 and 5).



**Fig. 4 Headliner Retainer Clip and Retainer Rail**



**Fig. 5 Headliner Correctly Installed**

(2) Install the upper trim moldings around the perimeter of the headliner. Tighten the retaining screws to 1 N·m (11 in-lbs) torque.

(3) As applicable, install:

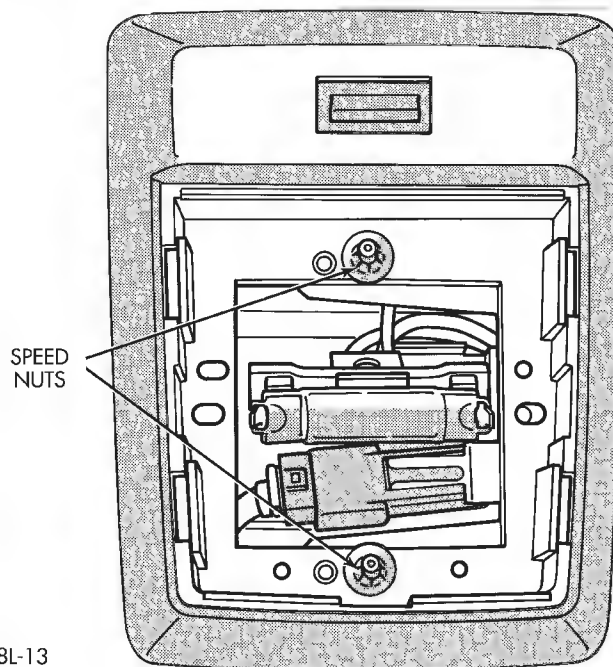
- Assist handles.
- Sunvisors.
- Dome/cargo lamps.
- Overhead console.
- Keyless entry receiver module.
- Sound bar.
- All other attached/overlapping components.

### DOMELAMP—XJ

#### REMOVAL

(1) Remove the dome lamp lens by squeezing both sides to release the retaining clips. Pull downward to remove the lens.

(2) Remove the speed nuts (Fig. 6).



**Fig. 6 Dome Lamp**

(3) Disconnect the wire harness connector.

(4) Remove the lamp from the headliner.

#### INSTALLATION

(1) Connect the dome lamp wire harness connector.

(2) Position the dome lamp in the headliner hole and install the speed nuts.

(3) Install the dome lamp lens.

### OVERHEAD CONSOLE—XJ

Refer to Group 8C, Overhead Console for removal and installation procedure.

### KEYLESS ENTRY RECEIVER—XJ

Refer to Group 8P, Keyless Entry for removal and installation procedure.

### SUNVISORS—XJ

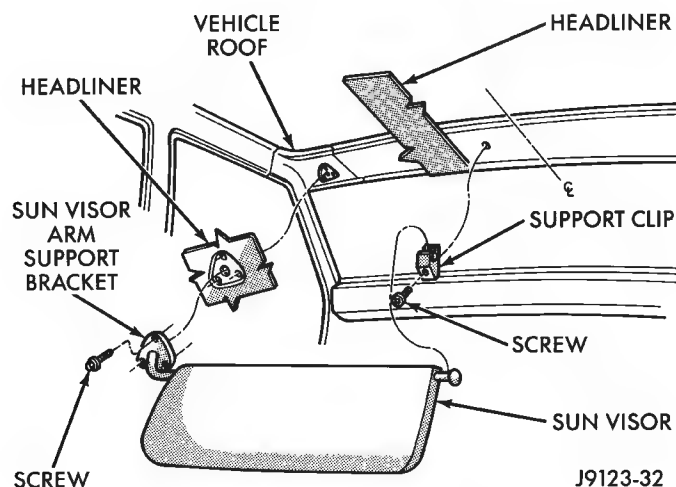
#### REMOVAL

(1) Remove the screws that attach the sunvisor arm support bracket to the headliner and the roof panel (Fig. 7).

(2) Detach the sunvisor from the support clip.

(3) Remove the sunvisor from the vehicle.

(4) Remove the retaining screw and support clip.



**Fig. 7 Sunvisor Removal/Installation**

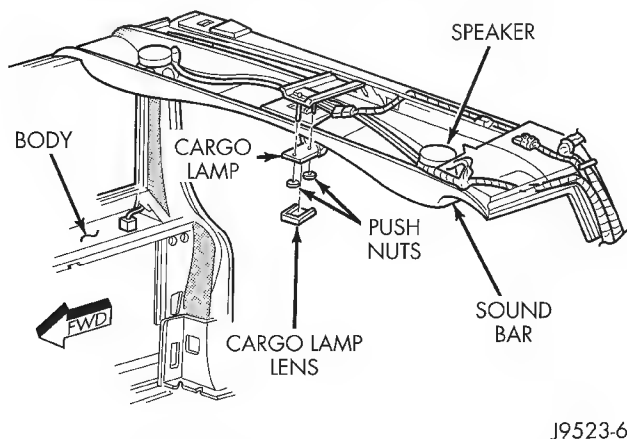
#### INSTALLATION

- (1) Install the support bracket and the retaining screw. Tighten the screw to 1 N·m (9 in-lbs) torque.
- (2) Position the sunvisor in the support clip and align the arm support bracket holes with the headliner holes.
- (3) Install the screws that attach the sunvisor arm support bracket to the headliner and the roof panel. Tighten the screws to 4 N·m (35 in-lbs) torque.

#### SOUND BAR—XJ

##### REMOVAL

- (1) Disconnect battery negative cable.
- (2) Remove left and right upper trim molding.
- (3) Remove sound bar screws.
- (4) Separate sound bar from roof.
- (5) Disconnect speaker connector.
- (6) Disconnect cargo lamp connector.
- (7) Remove sound bar from vehicle (Fig. 8).



**Fig. 8 Sound Bar Removal/Installation**

#### INSTALLATION

- (1) Position sound bar in vehicle.
- (2) Connect speaker connector.
- (3) Connect cargo lamp connector.
- (4) Position sound bar at roof.
- (5) Install sound bar screws.
- (6) Install left and right upper trim molding.
- (7) Connect battery negative cable.

#### CARGO LAMP—XJ

##### REMOVAL

- (1) Remove the cargo lamp lens (Fig. 8) by squeezing both sides to release the retaining clips. Pull downward to remove the lens.
- (2) Remove the push nuts.
- (3) Disconnect the wire harness connector.
- (4) Remove the lamp from the sound bar.

##### INSTALLATION

- (1) Connect the cargo lamp wire harness connector.
- (2) Position the cargo lamp in the sound bar hole and install the push nuts.
- (3) Install the cargo lamp lens.

#### MINI-FLOOR CONSOLE—XJ

Mini-consoles are installed in XJ vehicles with and without a transmission floor shift (Fig. 1).

#### PARKING BRAKE HANDLE COVER—XJ

##### REMOVAL

- (1) Detach the rear of the cover from the base and pivot it upward (Fig. 2).
- (2) Remove the retaining screws from the cover base.
- (3) Remove the trim cover from the floor.

##### INSTALLATION

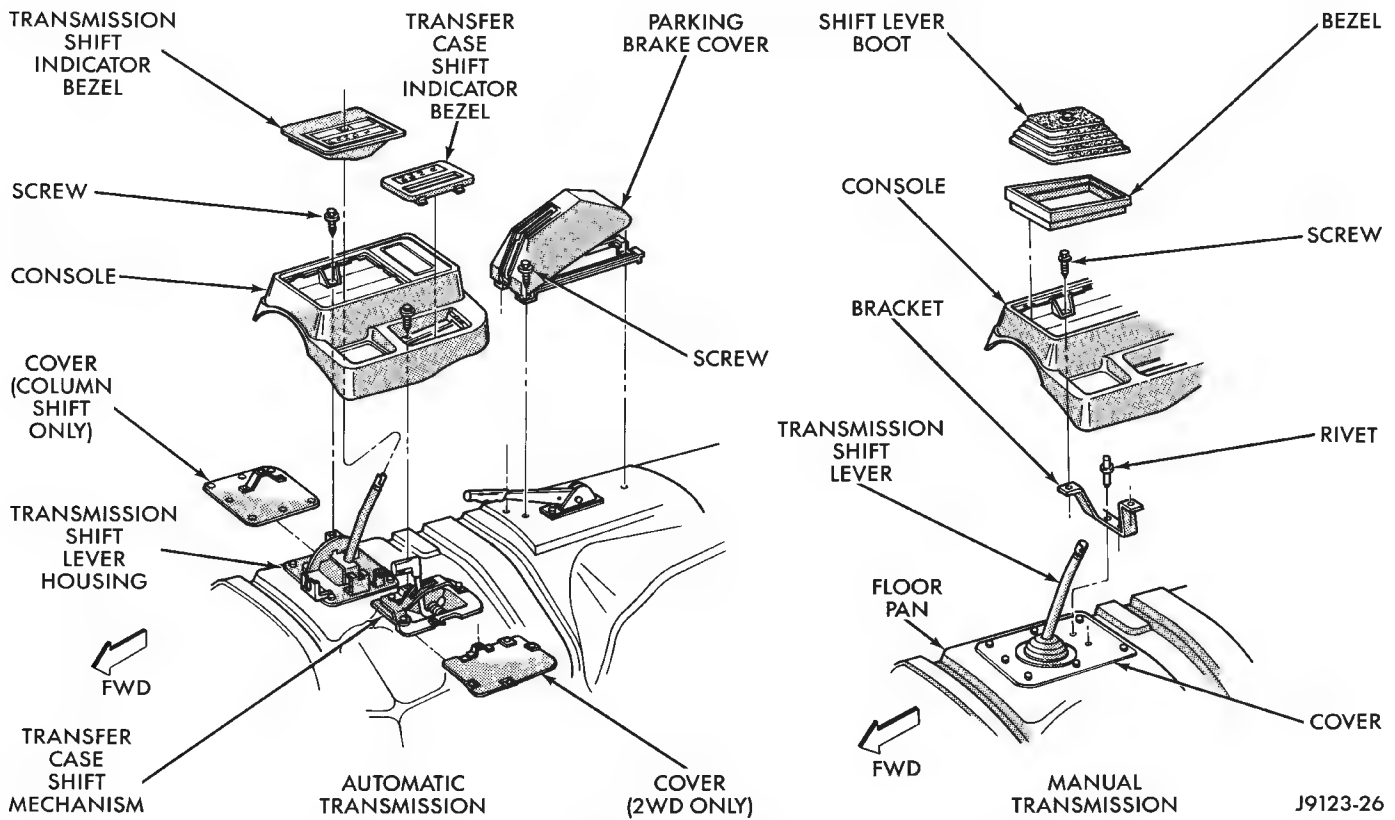
- (1) Position the cover on the floor and install the retaining screws.
- (2) Pivot the cover to the closed position and engage the locking tab.

#### MINI-CONSOLE WITH FLOOR SHIFT—XJ

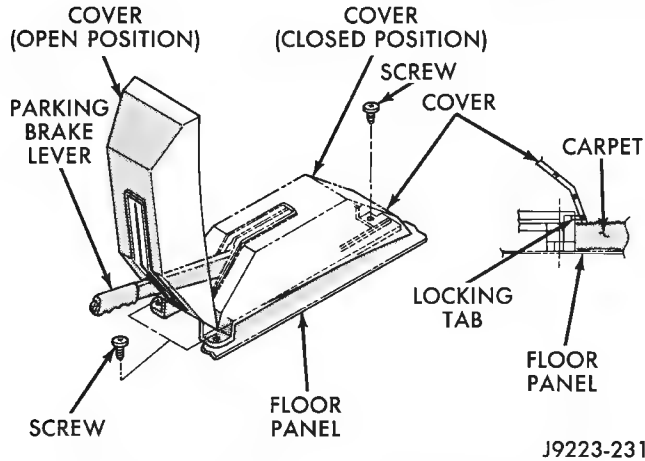
##### REMOVAL

- (1) Remove the transmission shift lever handle/knob. For vehicles with an automatic transmission, pull the handle straight up. For vehicles with a manual transmission, loosen the locknut and un-thread the shift knob from the shaft.
- (2) Remove the automatic transmission and transfer case shift indicator bezel by prying upward to release them (Fig. 3).
- (4) Disconnect the lamp socket from the bezel.
- (5) Remove the console retaining screws.
- (6) Disconnect the wire harness connector.





**Fig. 1 Mini-Console With Floor Shift**



**Fig. 2 Park Brake Cover With Mini-Console**

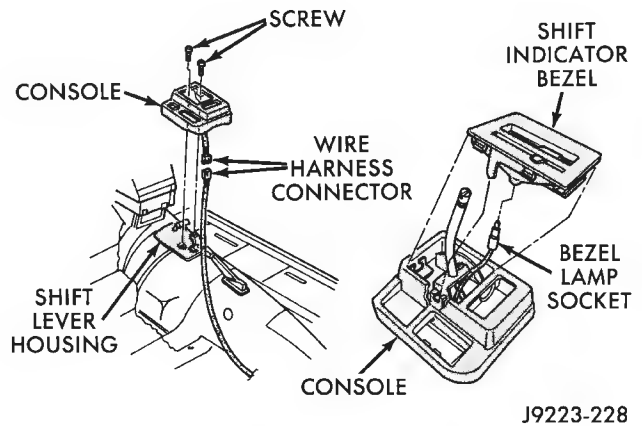
(7) Remove the mini-console from the transmission tunnel.

#### INSTALLATION

(1) Position the mini-console on the transmission tunnel, connect the wire harness connector and install the retaining screws. Tighten the screws to 1 N·m (13 in-lbs) torque.

(2) Position the shift indicator bezel at the console and connect the lamp socket to the bezel. Install the bezel in the console.

(3) Install the shift lever handle/knob. For automatic transmissions, push the handle downward un-



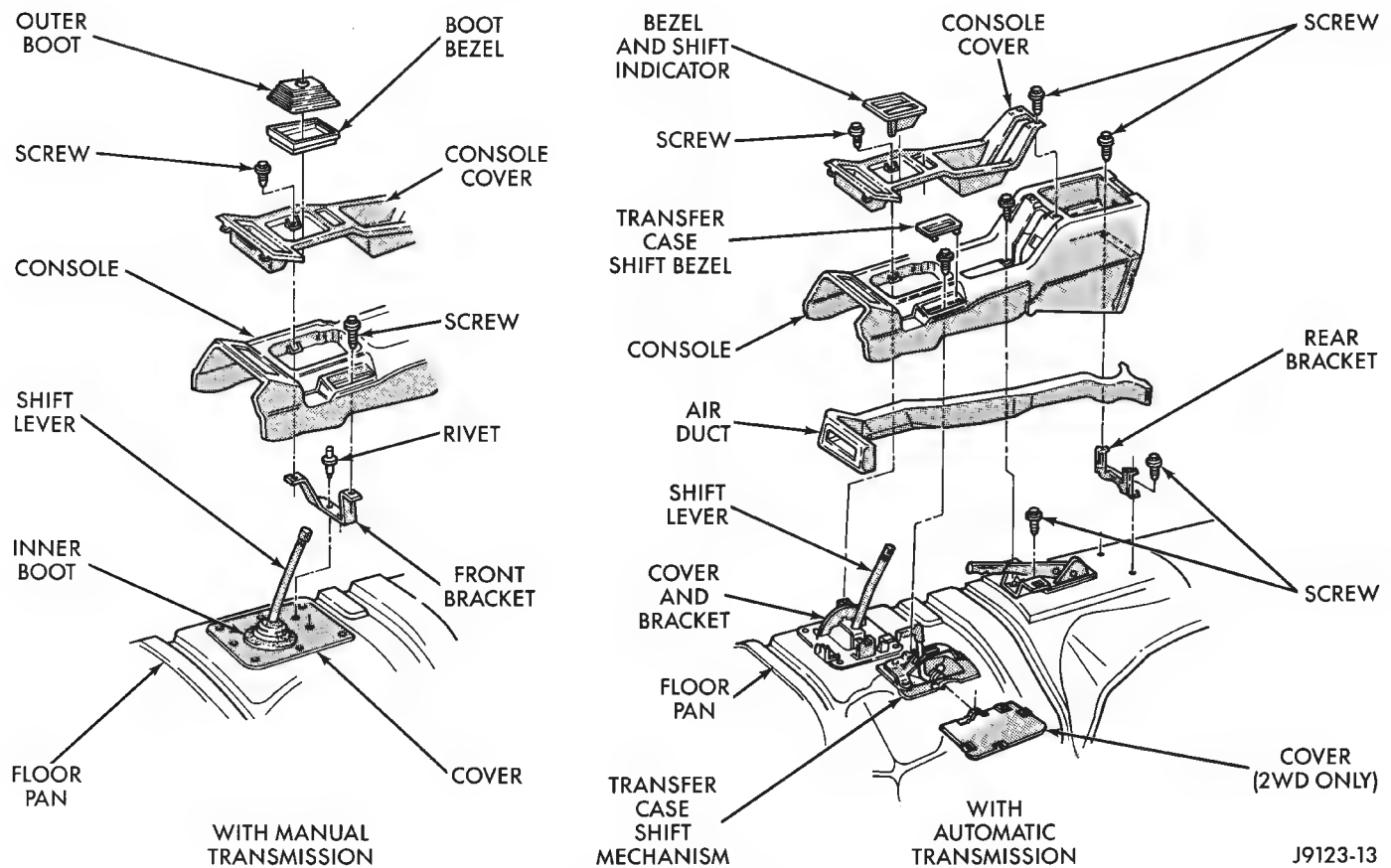
**Fig. 3 Mini-Console With Floor Shift**

til it is engaged. For manual transmissions, thread the knob onto the shaft and tighten the locknut.

#### FULL FLOOR CONSOLE—XJ

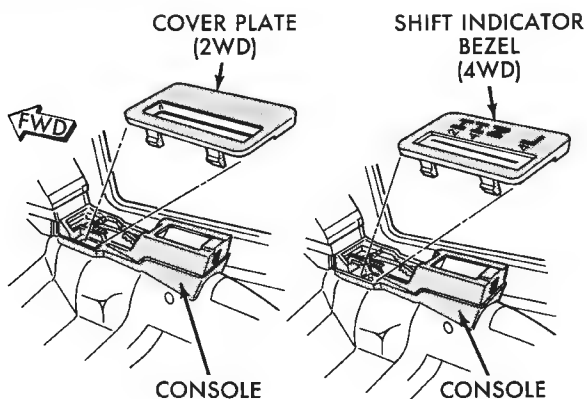
##### REMOVAL

(1) Remove the transmission shift lever handle/knob. For automatic transmissions, pull the handle straight upward to remove it. For manual transmissions, loosen the locknut and un-thread the shift knob from the shaft.

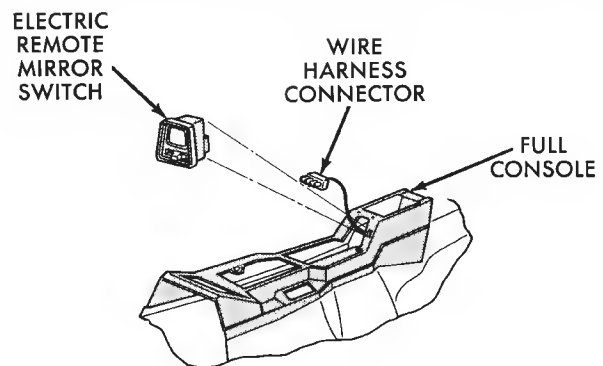
**Fig. 4 Full Console**

(2) Remove the automatic transmission shift indicator bezel (Fig. 4). Remove the transfer case shift indicator bezel (if equipped) or cover plate from the console (Fig. 5).

(3) If equipped, insert a thin-blade tool under the edge of the outside mirror remote control switch and pry outward to detach it from the console. Disconnect the wire harness connector from the switch (Fig. 6).



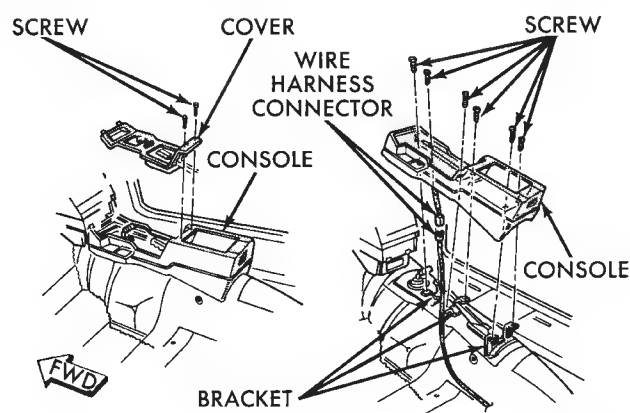
J9223-227

**Fig. 5 Transfer Case Shift Indicator Bezel/Cover Plate**

J9223-226

**Fig. 6 Outside Mirror Remote Control Switch**

(4) Remove the cover retaining screws and remove the cover from the console (Fig. 7).

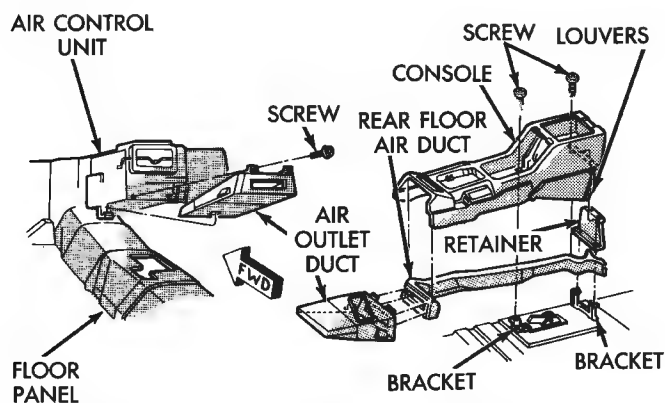


J9223-229

**Fig. 7 Full Console Removal/Installation**

(5) Remove the remainder of the console attaching screws from the brackets and disconnect the wire harness connector.

(6) Separate the console floor air duct from the air outlet duct (Fig. 8).



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**Fig. 8 Air Outlet and Console Floor Air Ducts**

- (7) Remove the console and air duct from the floor.
- (8) Separate the floor air duct from the console.
- (9) Remove the retaining screws and detach the floor duct from the heater housing, if necessary.
- (10) Remove the console support brackets.

**The brackets are attached directly to the floor panel below the carpet.**

#### INSTALLATION

(1) Install the console support brackets, if removed. Tighten the screws to 1 N·m (11 In-lbs) torque.

**The brackets are attached directly to the floor panel below the carpet.**

(2) Attach the floor duct to the heater housing, if removed. Tighten the screws to 1 N·m (11 In-lbs) torque.

(2) Attach the air duct to the console.

(3) Position the console on the floor, attach the air duct to the air outlet duct, connect the wire harness connector and install the console retaining screws in the brackets. Tighten the screws to 1 N·m (11 In-lbs) torque.

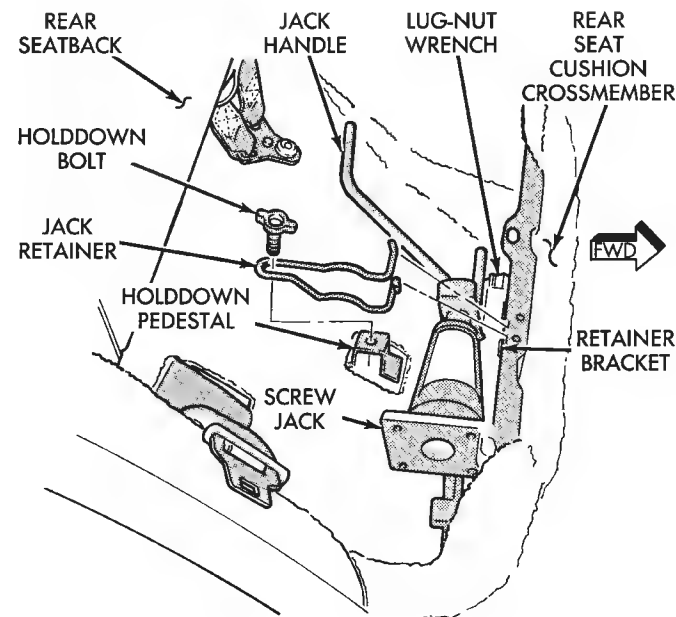
(4) Install the console cover and shift indicator bezels (or cover plate). Tighten the screws to 1 N·m (11 In-lbs) torque.

(5) If equipped:

- Connect the wire harness connector to the outside mirror remote control switch.
  - Insert the switch into the console hole.
  - Push inward to engage the retaining dips.
- (6) Install the shift lever handle/knob.

#### JACK STORAGE—XJ

The XJ lift jack and related tools are stored under the rear seat behind the front passenger's seat. The jack and tools are attached to the floor panel and seat cushion crossmember with a retainer and hold-down bolt (Fig. 1).

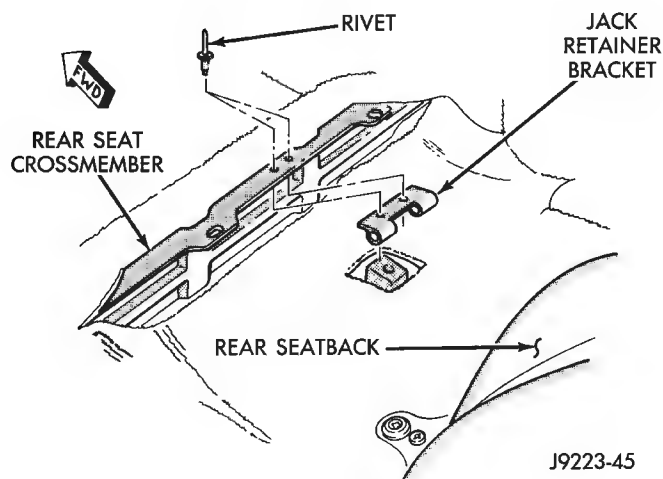


J9223-44

**Fig. 1 Jack and Related Tools**

When necessary, the jack retainer bracket can be removed from the crossmember by drilling-out the rivet heads and then removing the rivet bodies with a punch. Install the retainer bracket with either rivets or bolts and nuts (Fig. 2).



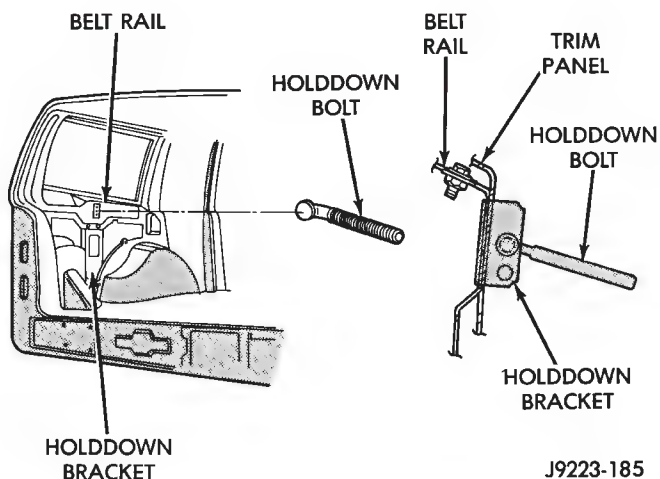


**Fig. 2 Jack Retainer Bracket**

## SPARE TIRE/WHEEL HOLDDOWN AND FLOOR BRACKETS—XJ

### REMOVAL

- (1) Remove the spare tire and wheel (Fig. 3).
- (2) Remove the floor bracket retaining screws.
- (3) Remove the holddown bolt from the holddown bracket (Fig. 4 and 5).
- (4) Remove the trim panel from the quarter panel. If necessary, refer to the removal procedure.
- (5) Remove the retaining screws and the holddown bracket from the quarter panel.



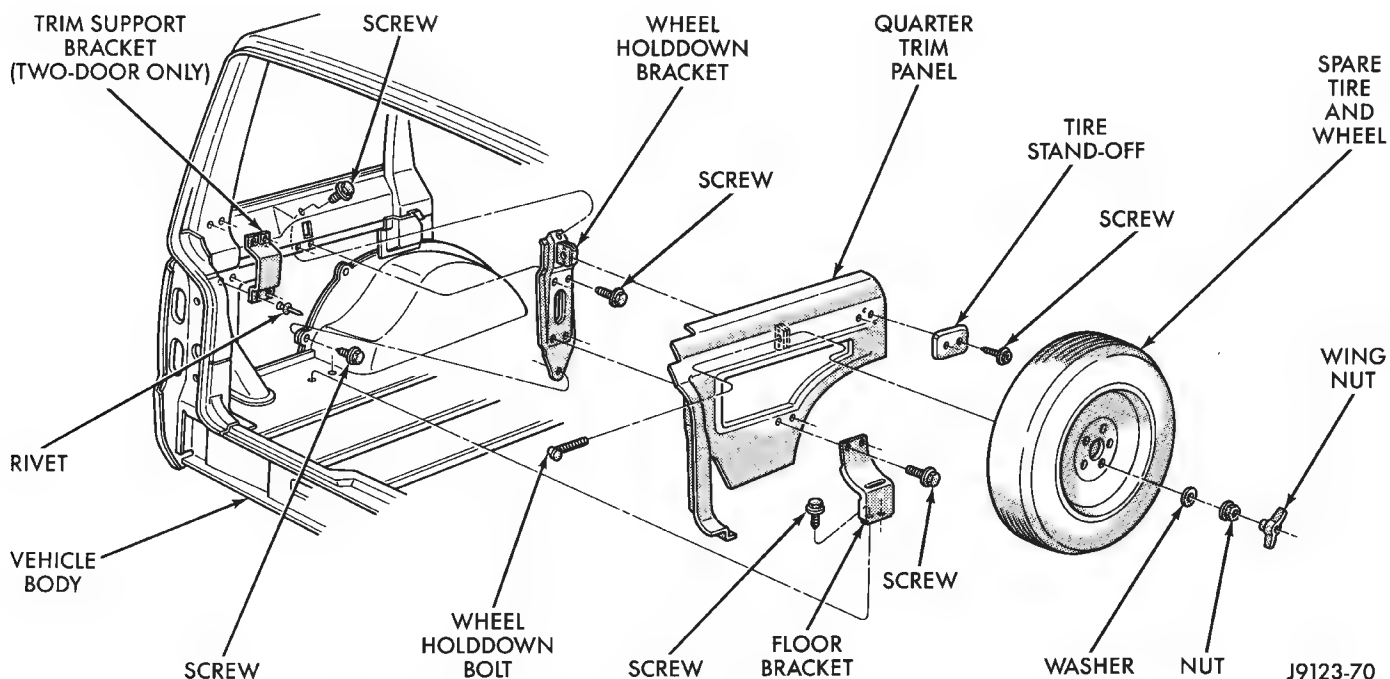
**Fig. 4 Spare Tire/Wheel Holddown Bolt and Bracket (LHD)**

### INSTALLATION

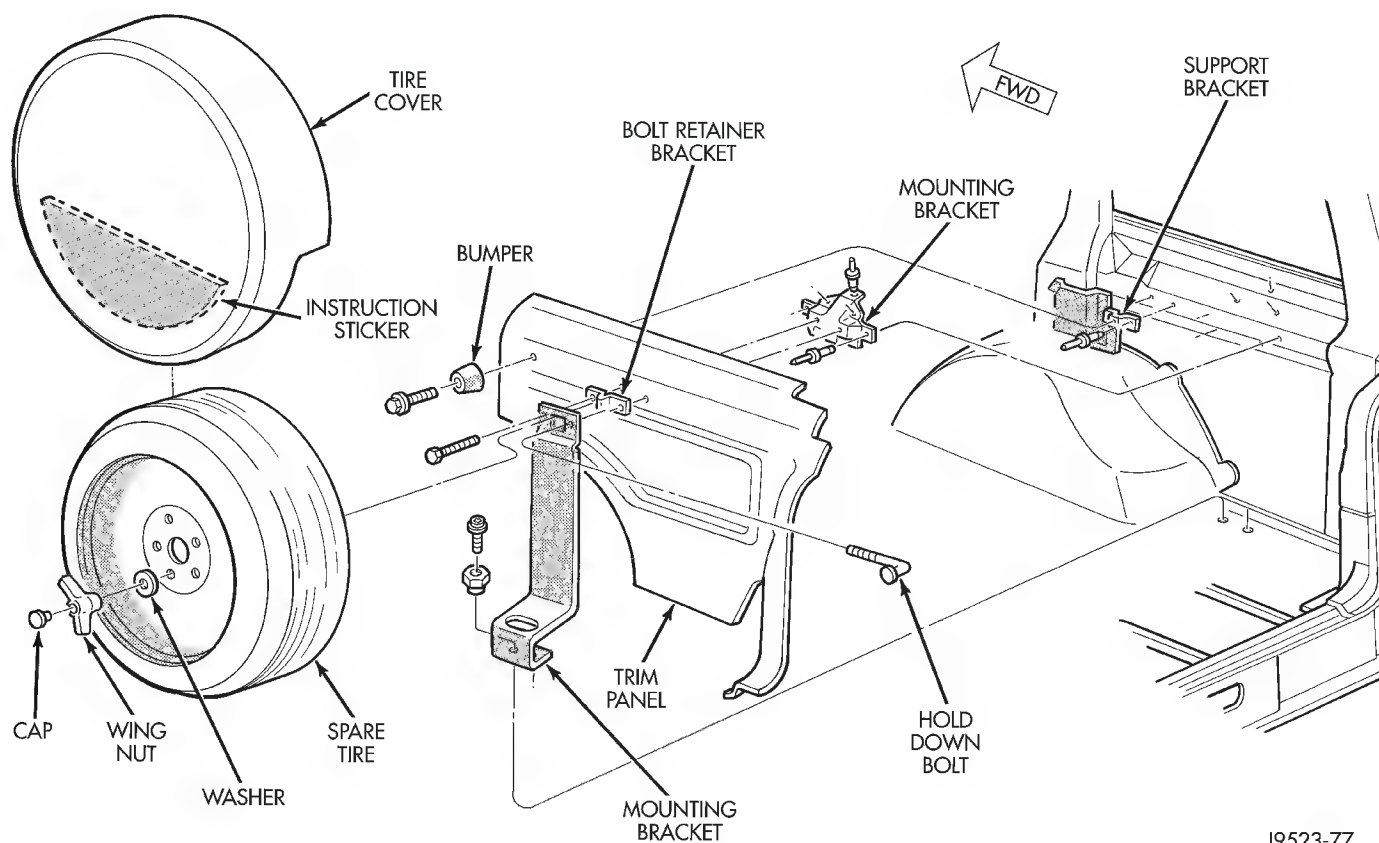
- (1) Position the holddown bracket on the quarter panel and install the retaining screws. Tighten the screws to 8 N·m (71 in-lbs) torque.
- (2) Install the quarter trim panel. If necessary, refer to the installation procedure.
- (3) Install the holddown bolt in the holddown bracket.

**The length of the holddown bolt is different for P195 and P225 tires.**

- (4) Position the floor bracket on the trim panel and install the retaining screws. Tighten the screws to 1 N·m (11 in-lbs) torque.
- (5) Install the spare tire and wheel.



**Fig. 3 Interior Spare Tire/Wheel Holddown and Floor Brackets**



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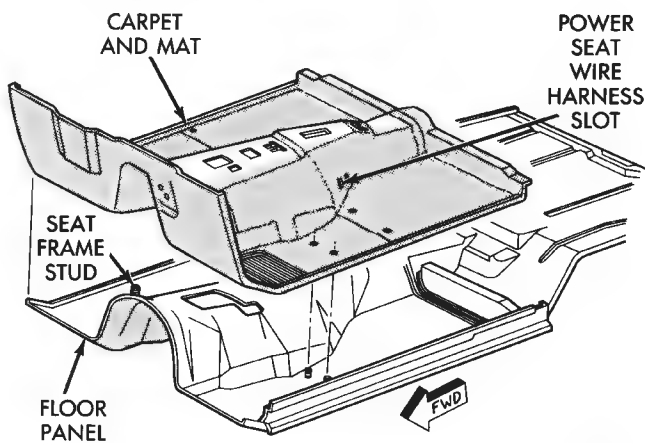
**Fig. 5 Spare Tire/Wheel Holddown Bolt and Bracket (RHD)**

## CARPETS AND FLOOR MATS—XJ

The carpets/mats are retained around the perimeter of the floor panel by the interior trim moldings and trim panels. To remove a carpet/mat, all of the retaining trim moldings and panels must be removed along with all the interfering components (as applicable):

- Seat(s).
- Parking brake lever cover.
- Floor console.
- Transmission and transfer case (if equipped) floor shift cover/boot.

If necessary, refer to the applicable removal procedure(s) within this manual.



J9123-128

**Fig. 6 Front Carpet and Mat**

## FRONT CARPET/MAT—XJ

### REMOVAL

- (1) Remove the door sill inner scuff plates.
- (2) Remove the front and rear seats (as applicable).
- (3) As necessary, remove the trim panels and moldings.
- (4) Remove all other interfering components.
- (5) Remove the carpet and mat from the floor panel (Fig. 6).

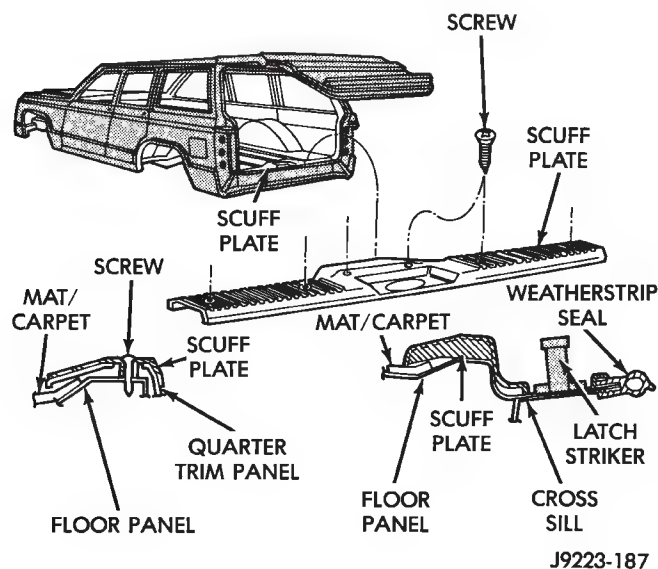
### INSTALLATION

- (1) Position the carpet and mat on the floor panel.

- (2) Install all the components that were removed to facilitate carpet/mat removal.
- (3) Install the trim panels and moldings.
- (4) Install the door sill inner scuff plates.
- (5) Install the front and rear seats (as applicable).

**REAR CARPET/MAT—XJ****REMOVAL**

(1) Remove the retaining screws, and the liftgate latch striker and scuff plate (Fig. 7).



**Fig. 7 Liftgate Latch Striker and Scuff Plate**

(2) Drill-out the retaining rivet heads and remove the cargo tie-down footman loops from the carpet.

(3) As necessary, remove the trim panels and moldings.

(4) Remove the all other interfering components.

(5) Remove the carpet and mat from the floor panel.

(6) If necessary, remove the skid strips from the carpet (Fig. 8).

(7) If necessary, remove the insulation from the wheelhouse (Fig. 9).

**INSTALLATION**

(1) If removed, install the skid strips on the carpet.

(2) If removed, install the insulation on the wheelhouses.

(3) Position the mat on the floor panel.

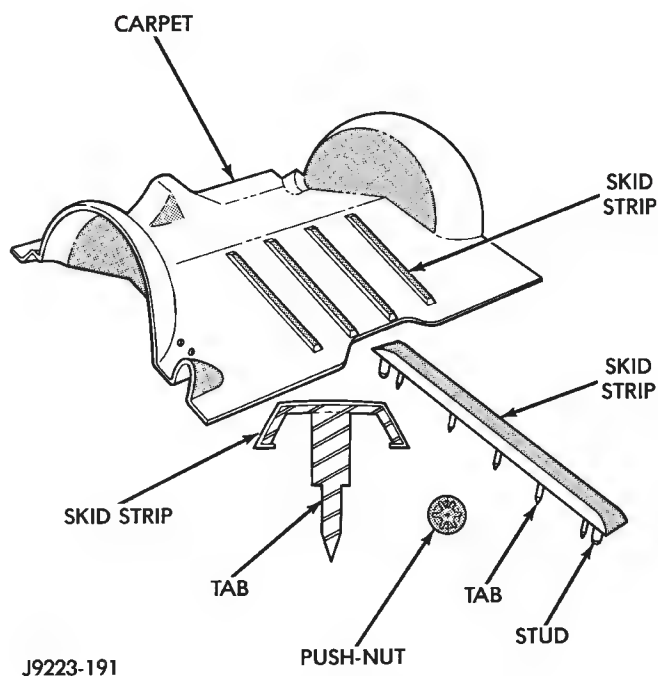
(4) Position the carpet on the mat.

(5) Install all the components that were removed to facilitate carpet and mat removal.

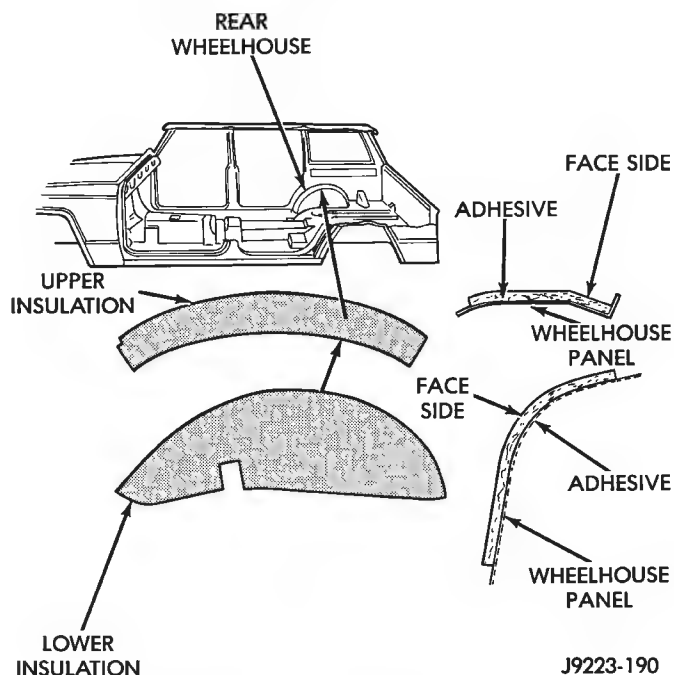
(6) Install the trim panels and moldings.

(7) Install the cargo tie-down footman loops on the carpet with replacement rivets.

(8) Position the liftgate scuff plate and latch striker on the carpet and cross sill. Install and tighten the scuff plate screws to 1 N·m (11 in-lbs) torque. Tighten the latch striker screws to 30 N·m (22 ft-lbs) torque.



**Fig. 8 Rear Carpet Skid Strips**



**Fig. 9 Wheelhouse Insulation**

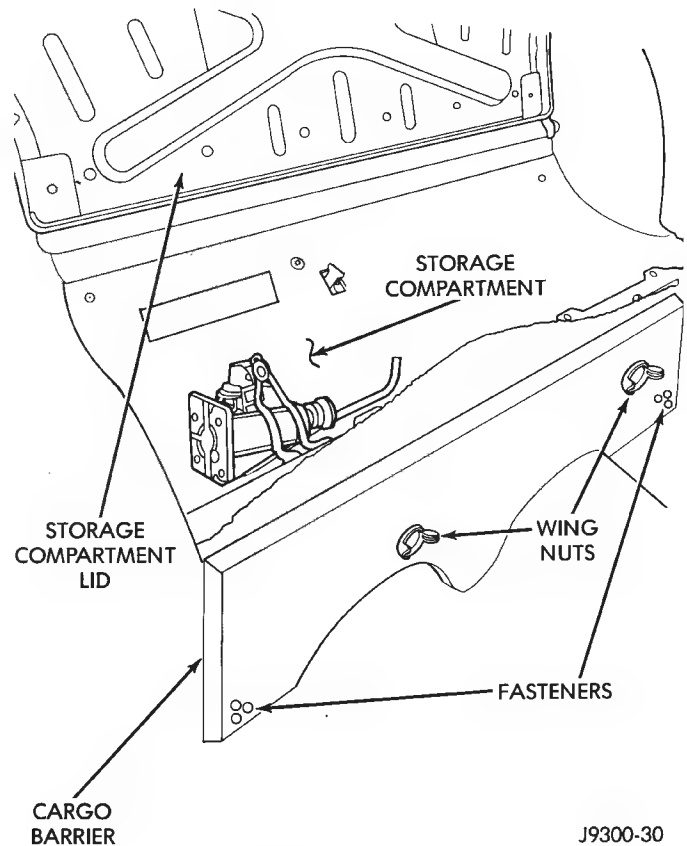


**CARGO BARRIER—XJ****REMOVAL**

- (1) Tilt both seats forward and raise the storage compartment lid.
- (2) Remove the wing nuts from the front side of the cargo barrier (Fig. 10).
- (3) Remove the fasteners from the lower outer corners of the cargo barrier.
- (4) Remove the cargo barrier.

**INSTALLATION**

- (1) Reverse the removal procedure to install the cargo barrier.



J9300-30

**Fig. 10 Cargo Barrier**

# BODY COMPONENTS—YJ VEHICLES

## CONTENTS

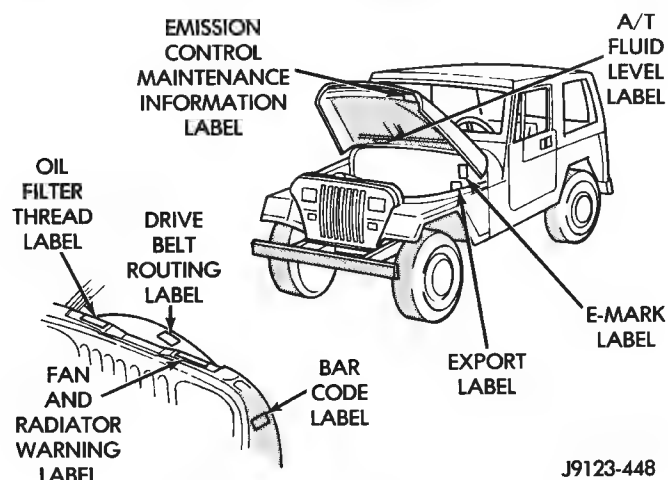
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## GENERAL SERVICE INFORMATION

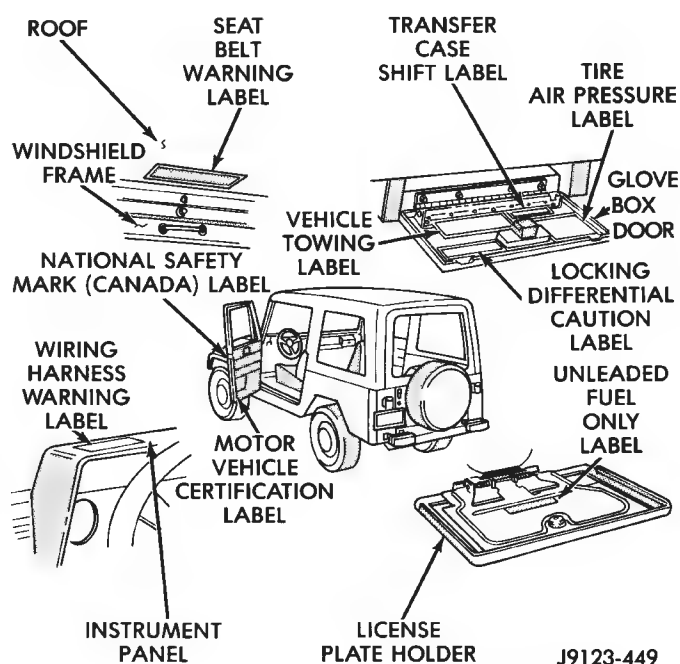
### LABELS/DECALS/PLATES—YJ

Most of the labels, decals and metal plates that are affixed to YJ vehicles (Figs. 1, 2, 3, 4 and 5) contain either safety or otherwise essential information.

Refer to the Introduction of this manual for additional information involving labels and metal plates.



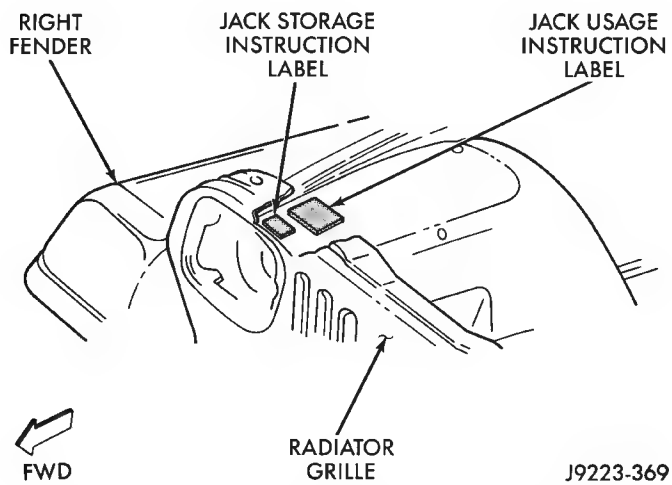
**Fig. 1 YJ Underhood Labels/Decals**



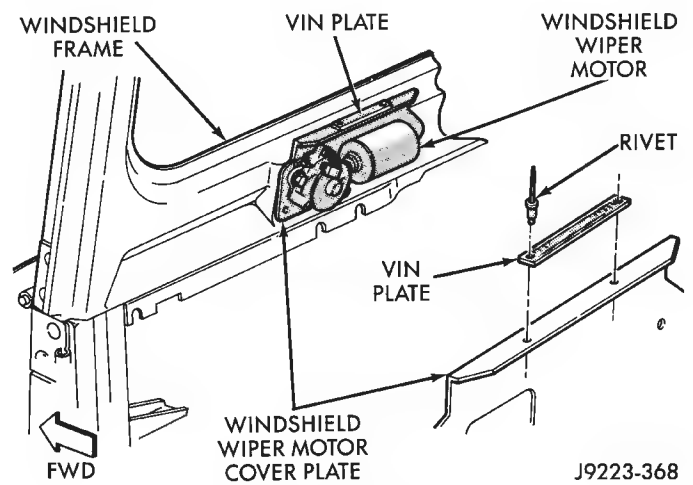
**Fig. 2 YJ Interior and License Plate Holder Labels/Decals**

### INSTALLATION

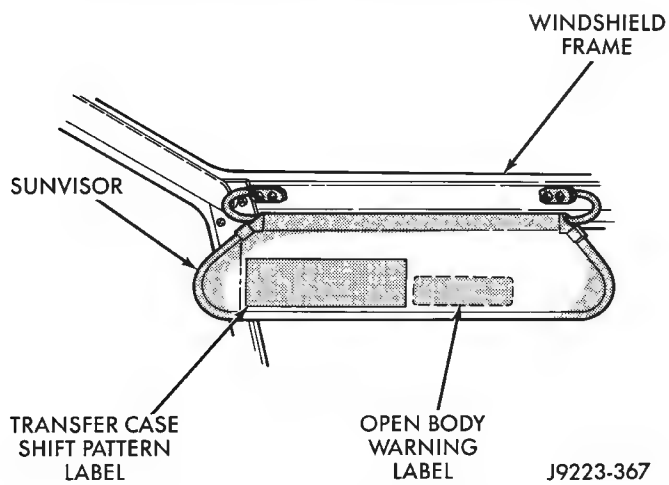
Follow the instructions included with each replacement label/decal/plate to affix it to a panel, component or window glass.



**Fig. 3 YJ Jack Storage and Usage Labels**



**Fig. 5 YJ VIN Plate**



**Fig. 4 YJ Sunvisor Labels**



## EXTERIOR COMPONENTS

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## RADIATOR GRILLE APPLIQUE—YJ

## REMOVAL

- (1) Raise the hood.
- (2) Remove the headlamp bezels (Fig. 1).

(3) Remove the headlamp bulb retainer screws (Fig. 2).

(4) Disconnect and remove the headlamps and buckets as a unit (Fig. 2).

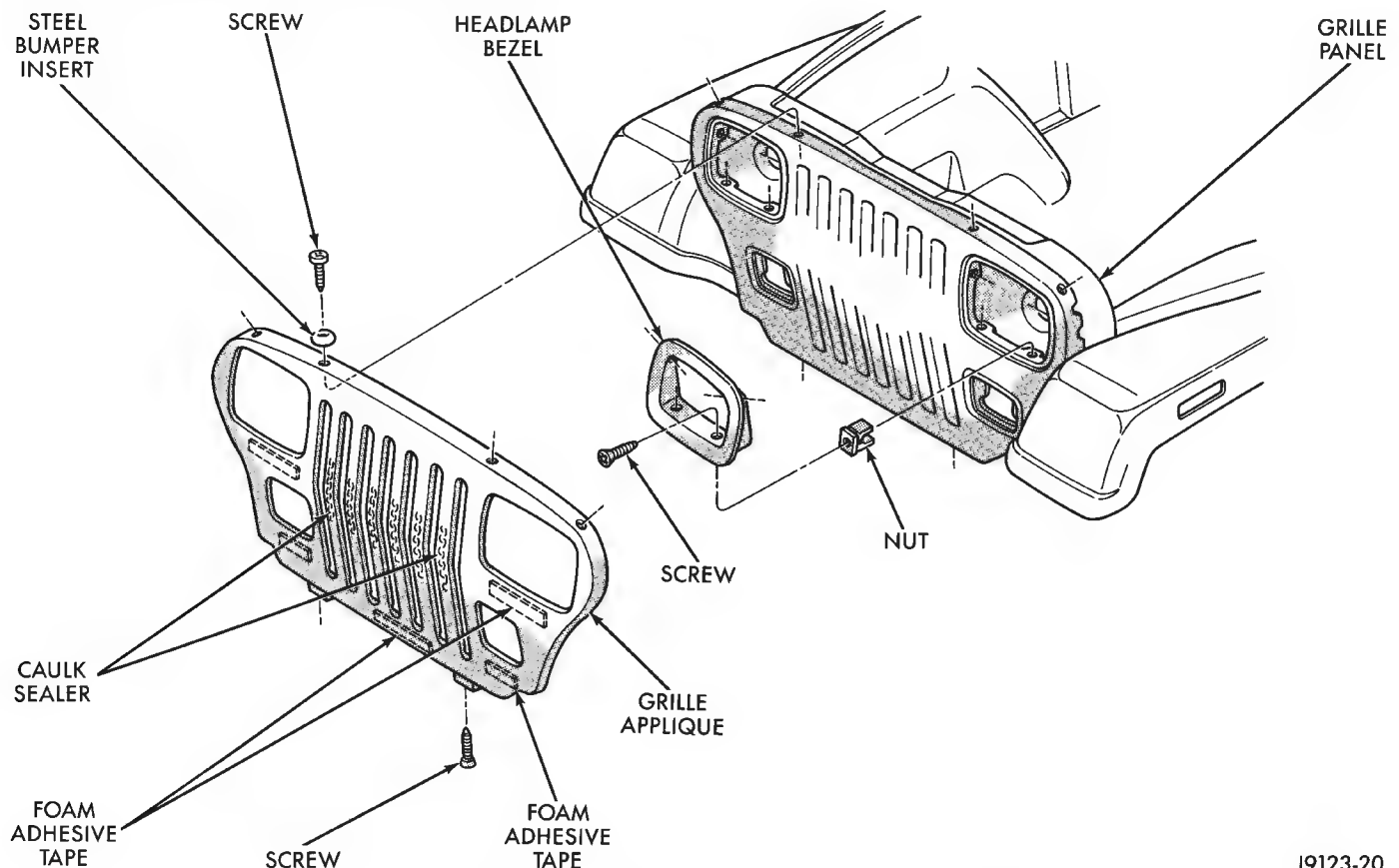
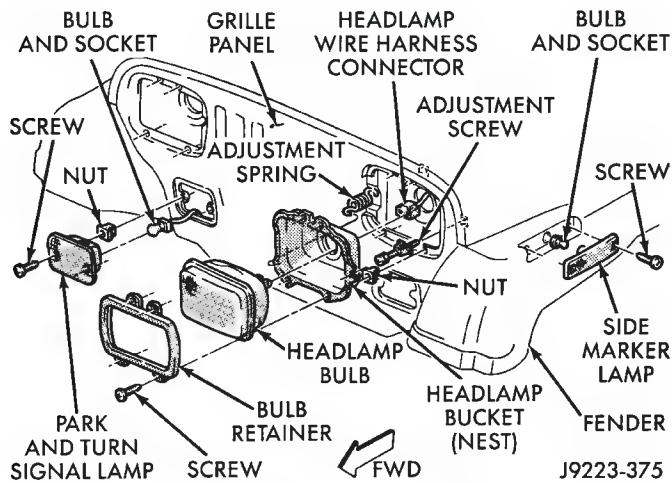


Fig. 1 Grille Applique, Headlamp Bezel and Grille Panel



**Fig. 2 Front Lamps**

(5) Remove the parking lamp retaining screws (Fig. 2).

(6) Disconnect the wire harness connectors and remove the parking lamps (Fig. 2).

(7) Remove the front crossmember cover.

(8) Remove the retaining screws and the bumper inserts at the top of the grille panel (Fig. 1).

(9) Detach the grille applique from the grille panel (Fig. 1).

(10) Remove the double faced foam adhesive tape at the bottom of the grille applique (Fig. 1).

### INSTALLATION

(1) Install double faced foam tape at the bottom, interior side of the grille applique (Fig. 1).

(2) Position the grille applique over the grille panel and press inward along the bottom where the tape is located (Fig. 1).

(3) Install the grille applique retaining screws and the bumper inserts (Fig. 1).

(4) Connect the wire harness connectors and position the headlamp buckets and headlamps in the grille panel (Fig. 2).

(5) Install the headlamp bulb retainer and the screws (Fig. 1). Tighten the screws to 2 N·m (18 in-lbs) torque.

(6) Install the headlamp bezels and the retaining screws (Fig. 1). Tighten the screws securely.

(7) Connect the wire harness connectors and install the parking lamps.

(8) Install the parking lamp retaining screws. Tighten the screws to 2 N·m (18 in-lbs) torque.

(9) Close the hood.

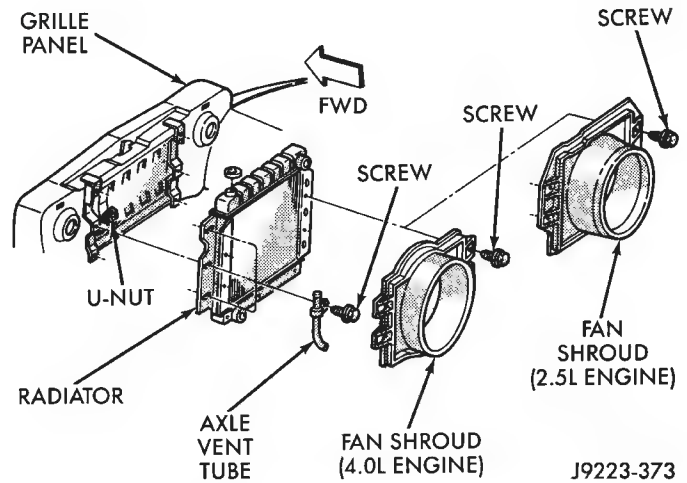
(10) Install the front crossmember cover.

### RADIATOR GRILLE PANEL

#### REMOVAL

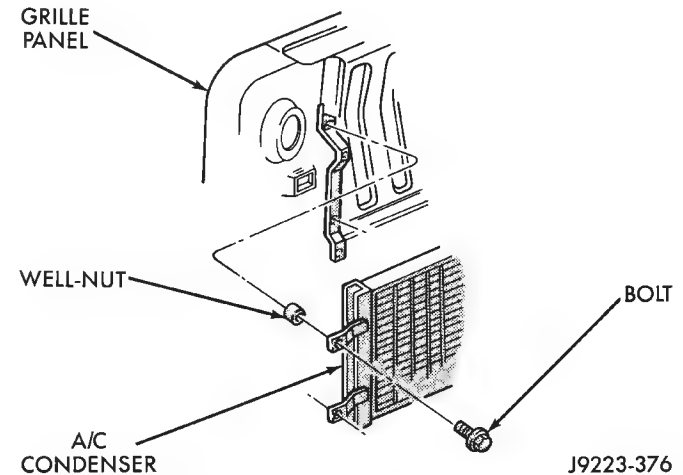
(1) Remove the front crossmember cover.

(2) Remove the screws and washers, and separate the radiator and shroud from the grille panel (Fig. 3).



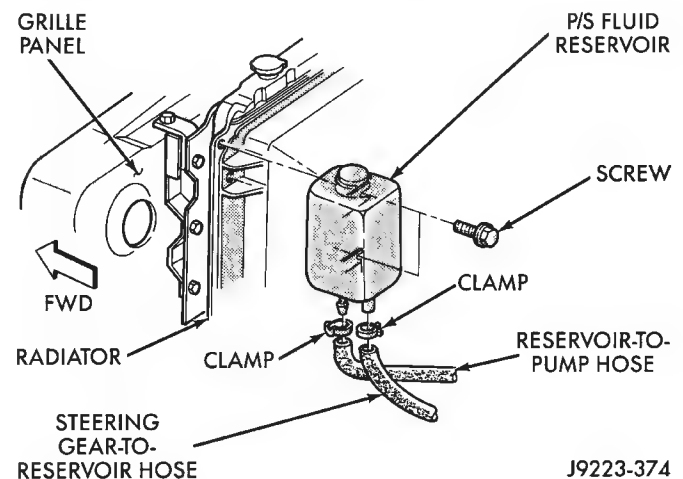
**Fig. 3 Radiator and Shroud**

(3) If equipped, remove the retaining bolts and separate the A/C condenser from the grille panel (Fig. 4).



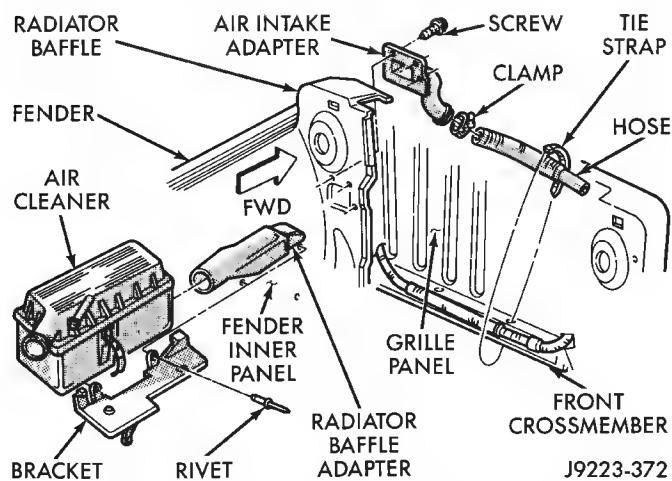
**Fig. 4 Radiator and Shroud**

(4) Remove the retaining screws and the P/S fluid reservoir from the grille panel (Fig. 5).



**Fig. 5 P/S Fluid Reservoir**

(5) Remove the retaining screws and the air intake adapters from the grille panel (Fig. 6).



**Fig. 6 Air Intake and Radiator Baffle Adapters**

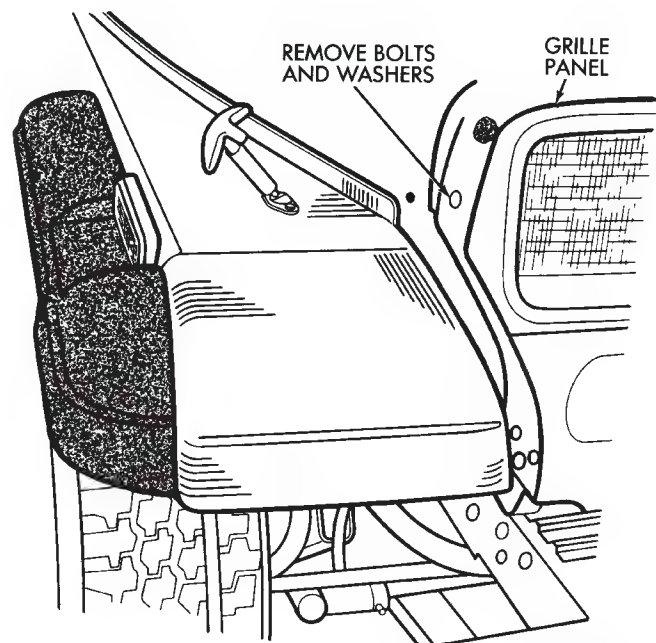
(6) Remove the bolts and washers that attach the grille panel to the fenders (Fig. 7).

(7) Remove the bolts, washers and spacers that attach the grille panel to the front crossmember (Fig. 8).

(8) Remove the nuts that attach the radiator support rods to the front brackets (Fig. 9). Remove the rods from the brackets.

(9) Tilt the grille panel forward and disconnect the head lamp, turn signal and marker lamp wire harness connectors.

(10) For vehicles equipped with A/C, discharge the A/C system. Disconnect the high pressure hose at the sight glass connection and at the compressor. Cap the

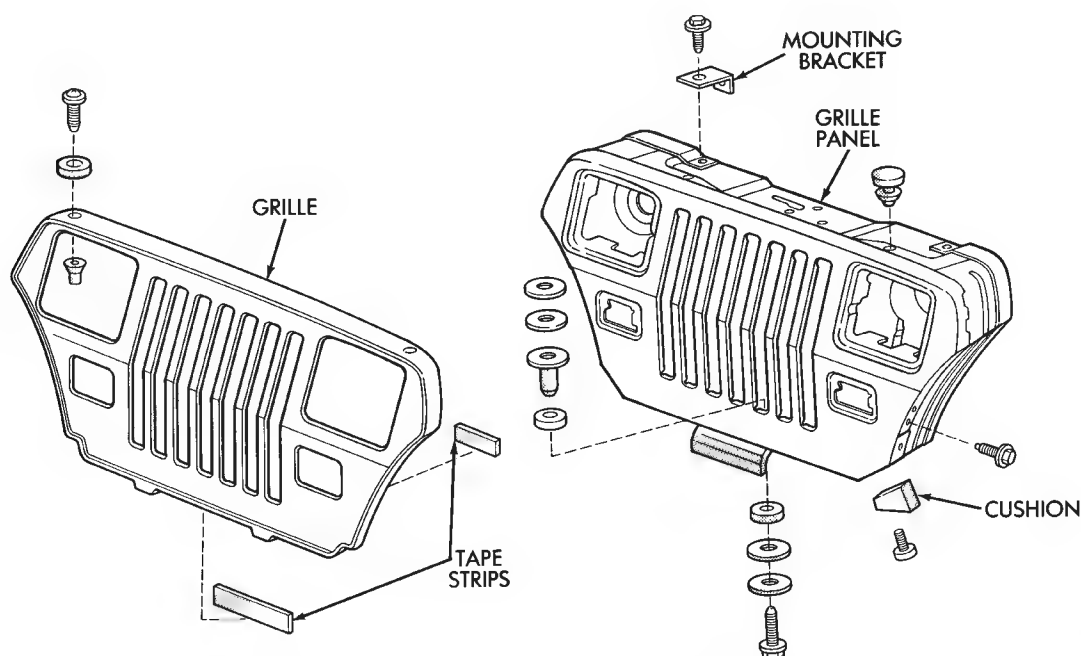


**Fig. 7 Grille Panel Front Bolt**

hose and fittings to prevent foreign material entry. If necessary, refer to Group 24—Heating And Air Conditioning.

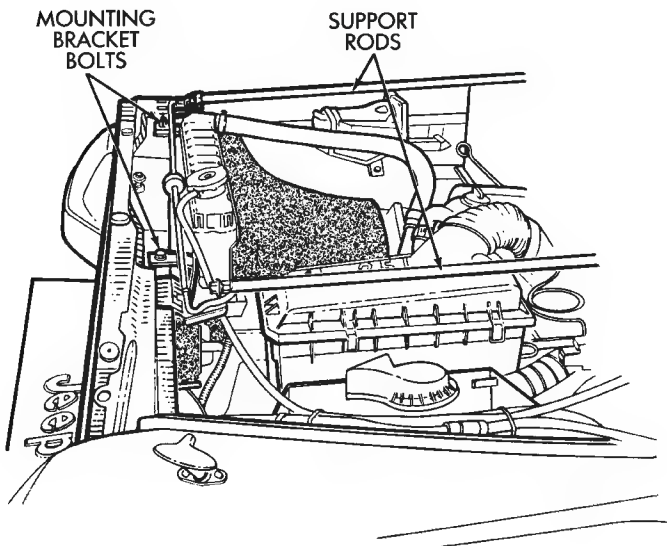
(11) Remove the grille panel from the vehicle (Fig. 8).

(12) If a replacement radiator grille panel will be installed, remove the grille applique (Fig. 8) and transfer the lamps, the headlamp buckets and the retaining brackets.



**Fig. 8 Radiator Grille Applique and Grille Panel**





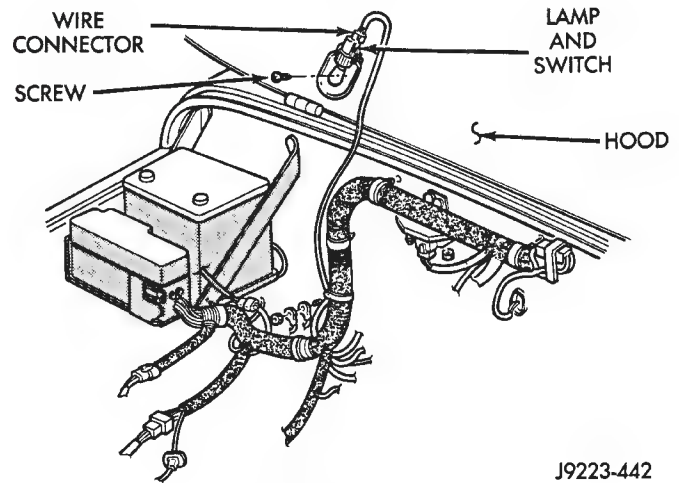
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**Fig. 9 Radiator Support Rods****INSTALLATION**

- (1) Position the grille panel on the vehicle.
- (2) Connect the marker, park and headlamp wire harness connectors.
- (3) Connect the radiator support rods with the retaining brackets (Fig. 9).
- (4) Attach the grille panel to the front crossmember.
- (5) Install the grille panel-to-front fender bolts (Fig. 7). Tighten the retaining screws to 27 N·m (20 ft-lbs) torque.
- (6) Install the air intake adapters on the grille panel (Fig. 6). Tighten the retaining screws to 3 N·m (25 in-lbs) torque.
- (7) Install the P/S fluid reservoir on the grille panel (Fig. 5). Tighten the retaining screws to 8 N·m (72 in-lbs) torque.
- (8) If equipped, install the A/C condenser on the grille panel (Fig. 4). Tighten the retaining screws to 2 N·m (20 in-lbs) torque. Connect the high pressure hose at the sight glass connection and at the compressor.
- (9) Install the radiator and shroud on the grille panel (Fig. 3). Tighten the retaining screws to 15 N·m (132 in-lbs) torque.
- (10) Install the front crossmember cover.
- (11) If removed, install the grille applique (Fig. 8).
- (12) Evacuate and charge the A/C system.

**HOOD—YJ****REMOVAL**

- (1) Raise and support the hood.
- (2) Disconnect the underhood lamp wire harness connector (Fig. 10).



J9223-442

**Fig. 10 Underhood Lamp**

- (3) Mark the position of the hinges on the hood for installation alignment reference (Fig. 11).
- (4) Remove the hinge attaching screws and remove the hood (Fig. 11).
- (5) If the hood must be replaced, remove and transfer the insulator panel, hinges, latches, bumpers, brackets, footman loop, hood lamp, support rod, and safety latch to the replacement hood (Fig. 12).

**INSTALLATION**

- (1) Position the hood on the vehicle and install the hinge attaching screws.
- (2) Align the hinges with the installation reference marks on the hood and tighten the hinge screws securely.
- (3) Connect the underhood lamp wire harness connector (Fig. 10).
- (4) Close the hood.

**HOOD ALIGNMENT—YJ**

The hood hinge attaching screw holes are oversized to facilitate hood adjustment movement.

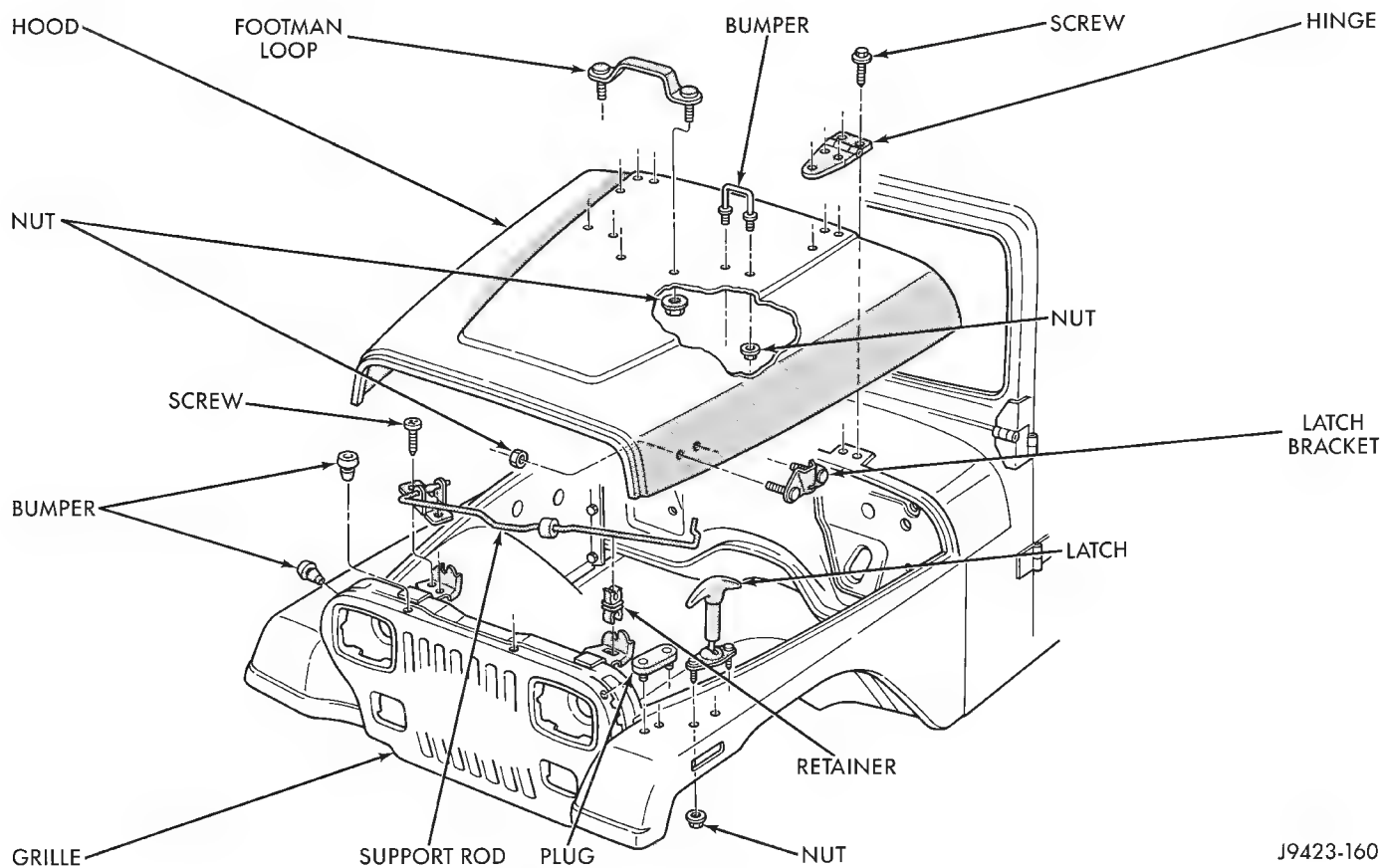
- (1) Loosen the hinge attaching screws.
- (2) Move the hood in the direction(s) required for correct alignment.
- (3) Tighten the hinge attaching screws.

**HOOD INSULATOR PANEL—YJ****REMOVAL**

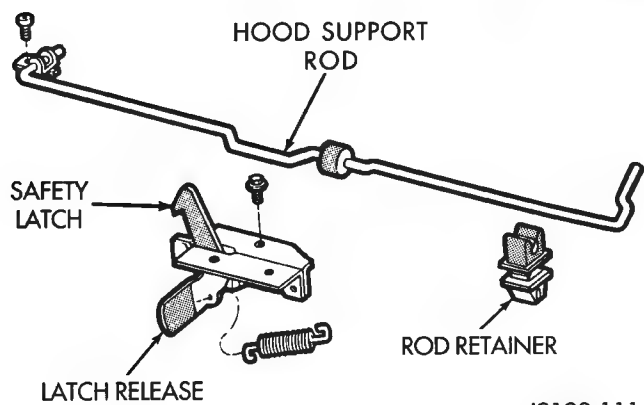
- (1) Raise and support the hood.
- (2) Remove the insulator panel retainers (Fig. 13).
- (3) Remove the insulator panel from the hood.

**INSTALLATION**

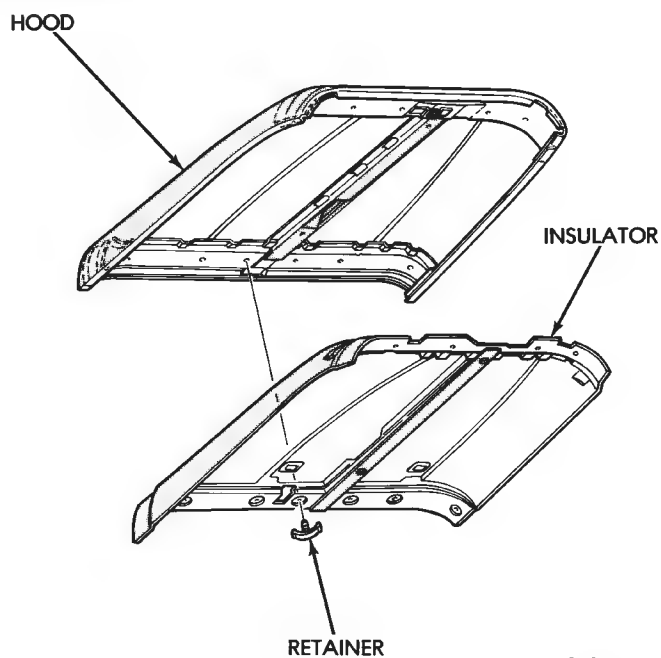
- (1) Position the insulator panel on the hood.
- (2) Install the insulator panel retainers.
- (3) Remove the support rod and close the hood.



**Fig. 11 Hood and Components**



**Fig. 12 Safety Latch and Support Rod**

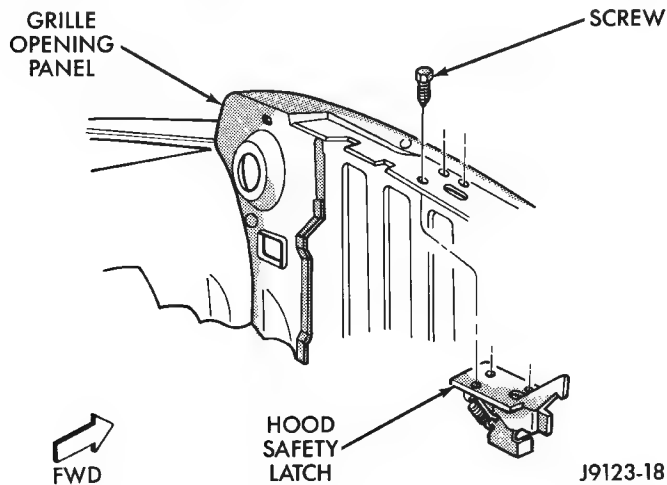


**Fig. 13 Hood Insulator Panel**

## HOOD SAFETY LATCH—YJ

### REMOVAL

- (1) Raise and support the hood.
- (2) Remove the latch retaining screws from the grille panel (Fig. 14).



**Fig. 14 Hood Safety Latch Removal/Installation**

- (3) Remove the latch from the grille panel.

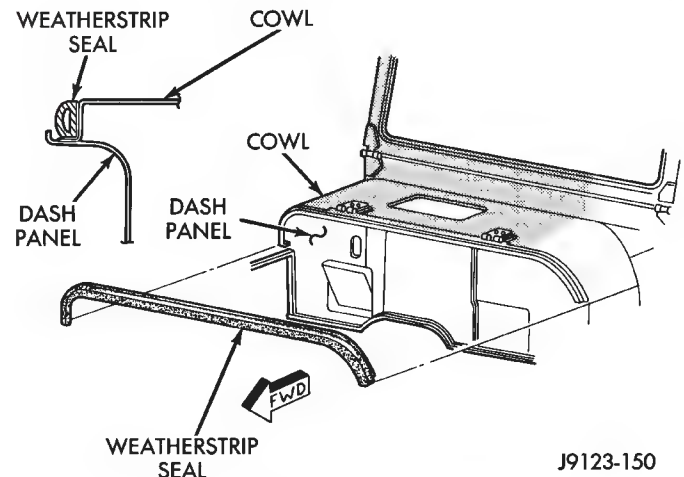
### INSTALLATION

- (1) Position the latch on the grille panel (Fig. 14).
- (2) Install the latch retaining screws.
- (3) Remove the support rod and close the hood.

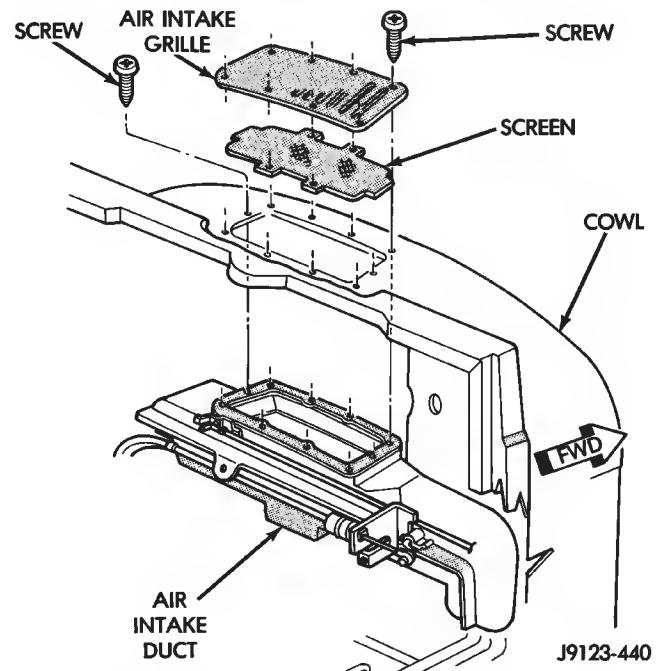
## COWL WEATHERSTRIP SEAL—YJ

### REMOVAL/INSTALLATION

- (1) Carefully separate the seal from the cowl/dash panel flange (Fig. 15).
- (2) Position the seal on the cowl/dash panel flange (Fig. 15) and press it against the panel edge.



**Fig. 15 Cowl Weatherstrip Seal**



**Fig. 16 Cowl Grille Removal/Installation**

- (2) Remove the grille and screen from the cowl (Fig. 16).

### REMOVAL

- (1) Remove the screws that attach the cowl air intake grille to the cowl and to the air intake duct (Fig. 16).

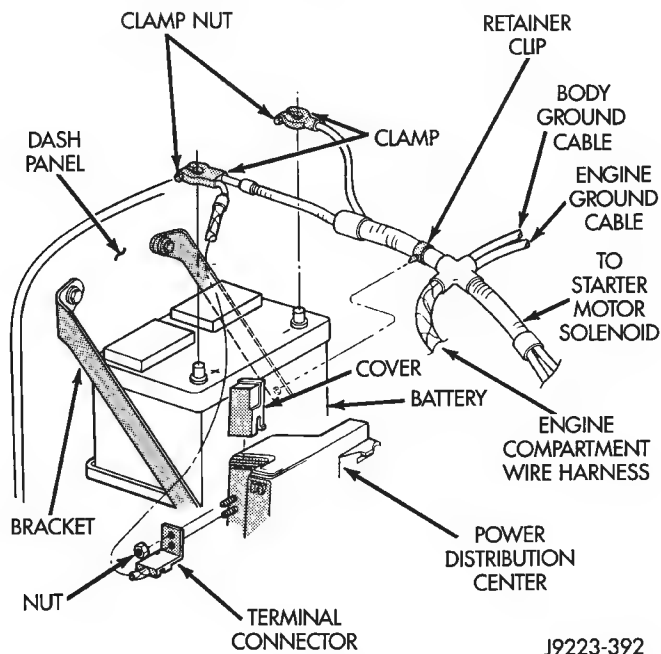
### INSTALLATION

- (1) Position the cowl screen and grille on the cowl.
- (2) Attach the grille and screen to the cowl and the air intake duct with the screws (Fig. 16).



**BATTERY TRAY—YJ****REMOVAL**

(1) Remove the cables from the battery and power distribution center (Fig. 1).



**Fig. 1 Battery and PDC Cables**

(2) Remove the retaining nuts and the battery holddown bracket from the holddown J-bolts (Fig. 2).

(3) Remove the battery from the tray.

(4) Remove the retaining screws, the support bracket and the PDC from the battery tray (Fig. 3).

(5) Remove the nuts that attach the battery tray to the cowl panel (Fig. 2).

(6) Remove the screws that attach the support brackets to the fender inner panel.

(7) Remove the screw that attaches the brace to the battery tray (Fig. 2).

(8) Remove the battery tray from the vehicle (Fig. 2).

**INSTALLATION**

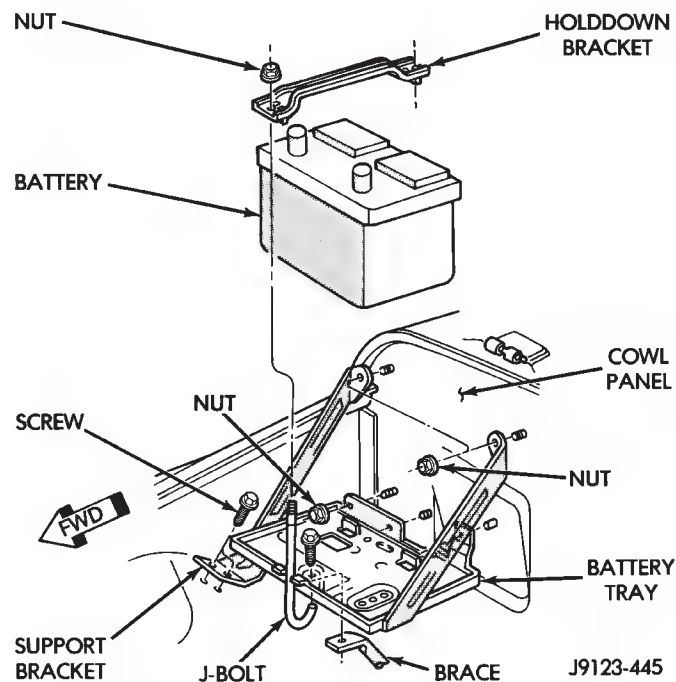
(1) If removed, install the J-bolts on the battery tray.

(2) Position the battery tray on the cowl panel with the studs inserted in the holes.

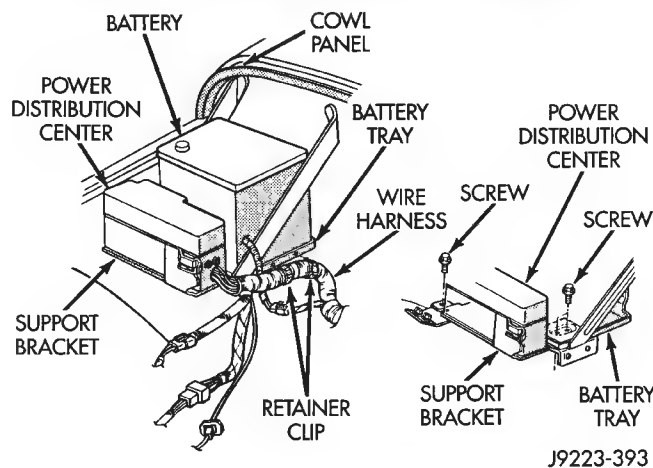
(3) Attach the battery tray to the cowl panel studs with the attaching nuts. Tighten the nuts on the studs to 4 N·m (35 in-lbs) torque.

(4) Install the screw that attaches the brace to the battery tray. Tighten the screw to 18 N·m (156 in-lbs) torque.

(5) Install the screws that attach the support brackets to the fender inner panel. Tighten the screws to 18 N·m (156 in-lbs) torque.



**Fig. 2 Battery Tray Removal/Installation**



**Fig. 3 PDC and Bracket Removal/Installation**

(6) Install the support bracket and PDC on the battery tray. Tighten the screws to 18 N·m (156 in-lbs) torque.

(7) Install the battery in the tray.

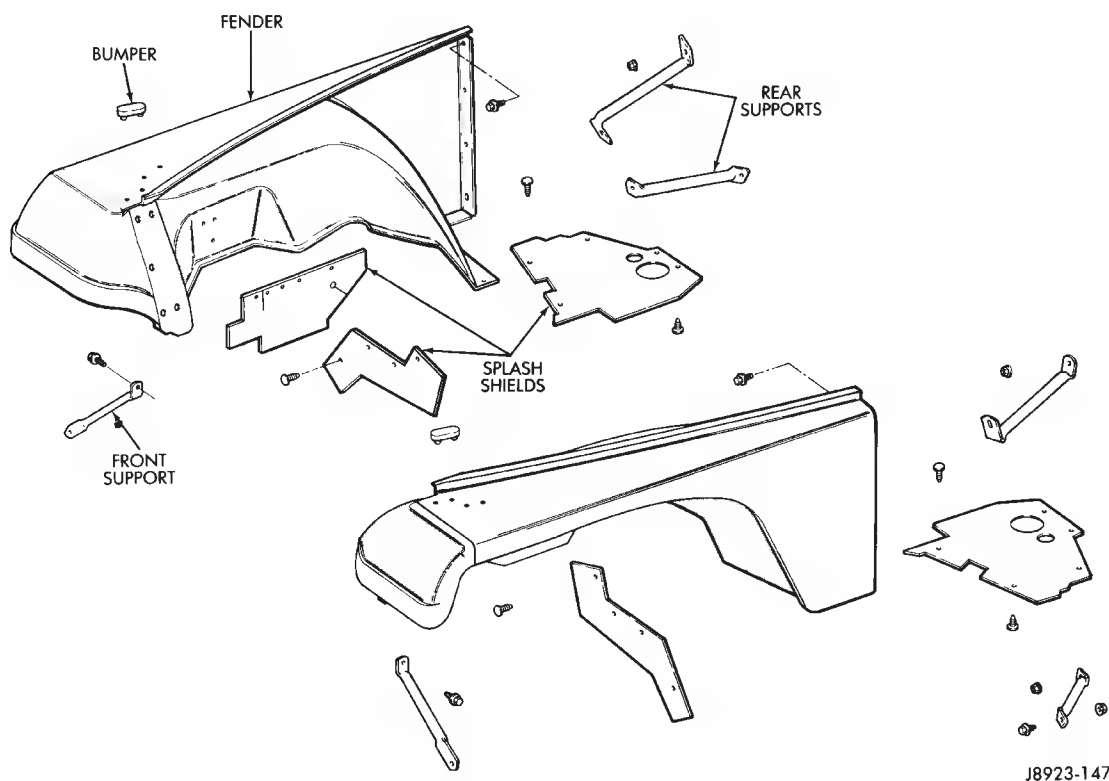
(8) Position the holddown bracket over the J-bolts.

(9) Install the retaining nuts on the J-bolts. Tighten the nuts to 4 N·m (35 in-lbs) torque.

(10) Remove the cables from the battery and power distribution center.

**FENDERS—YJ****SERVICE INFORMATION**

YJ fenders are comprised of the fender outer panel, the fender inner panel, the front and rear support brackets, and the splash shields (Fig. 4).



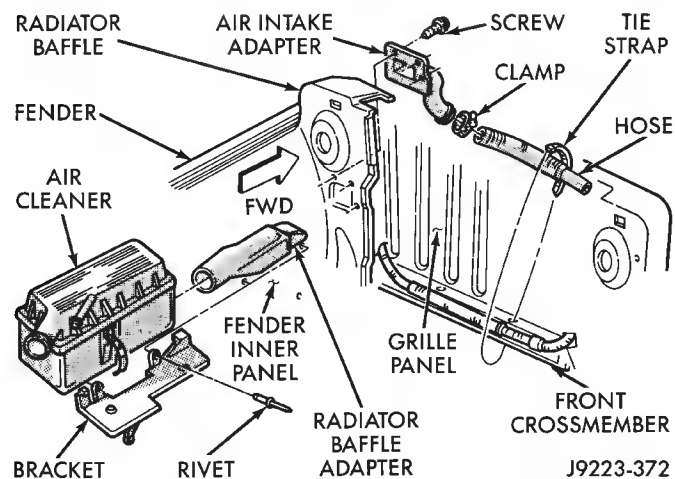
**Fig. 4 Fender Components**

### REMOVAL

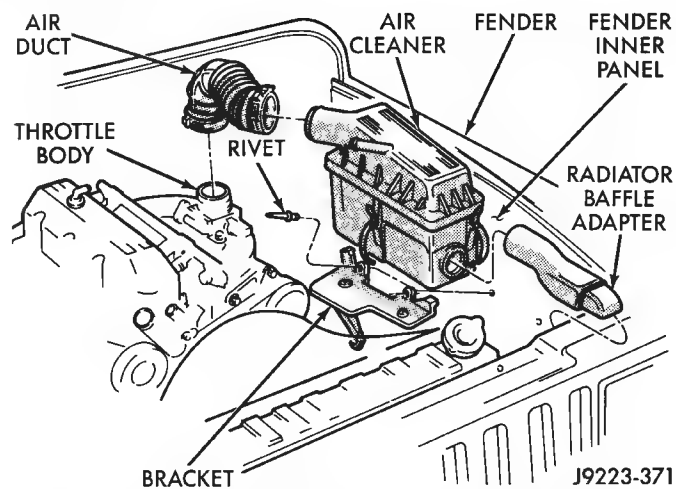
(1) As applicable, remove or disconnect all components attached to the fender inner panel.

(2) Left fender:

- Remove the air cleaner housing and support bracket from the fender inner panel (Fig. 5 and 6).

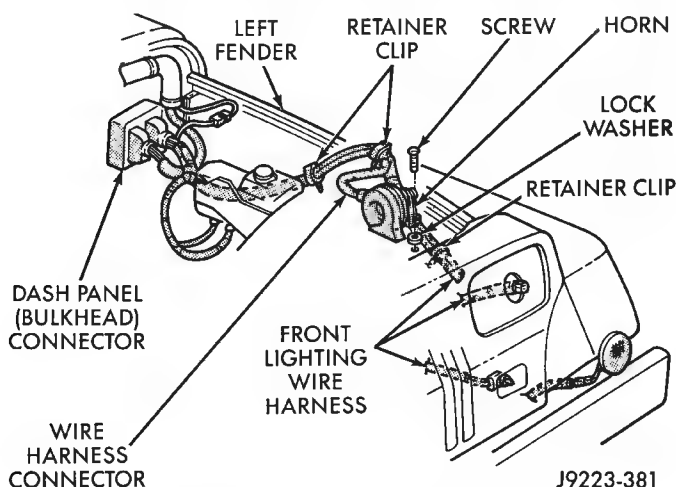


**Fig. 5 Air Cleaner Housing and Radiator Baffle Adapter Fender**



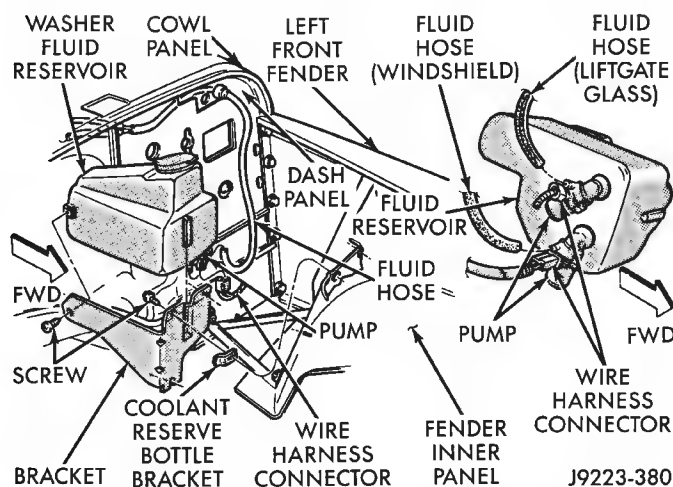
**Fig. 6 Air Cleaner Housing and Support Bracket**

- Remove the horn from the fender inner panel (Fig. 7).

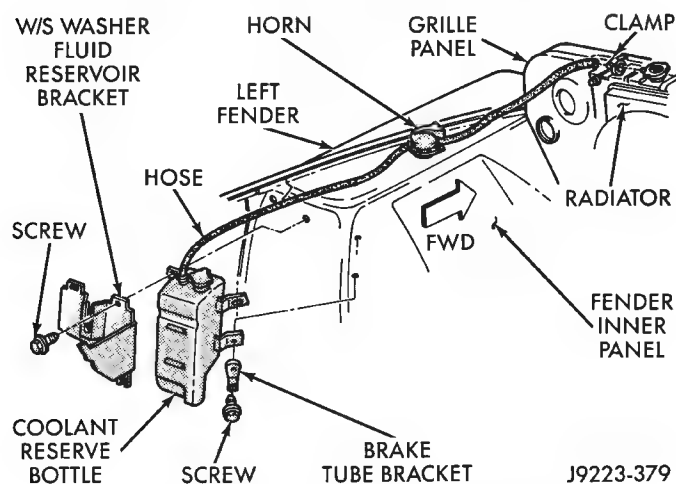


**Fig. 7 Horn Removal/Installation**

- Remove the windshield washer fluid reservoir and coolant reserve bottle from the fender inner panel (Fig. 8 and 9).



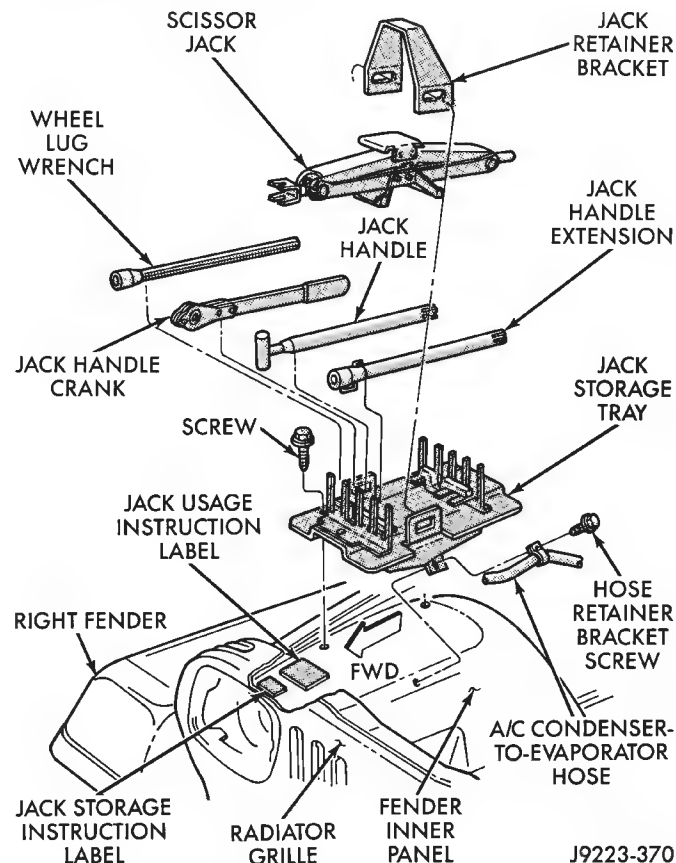
**Fig. 8 Windshield Washer Fluid Reservoir**



**Fig. 9 Coolant Reserve Bottle**

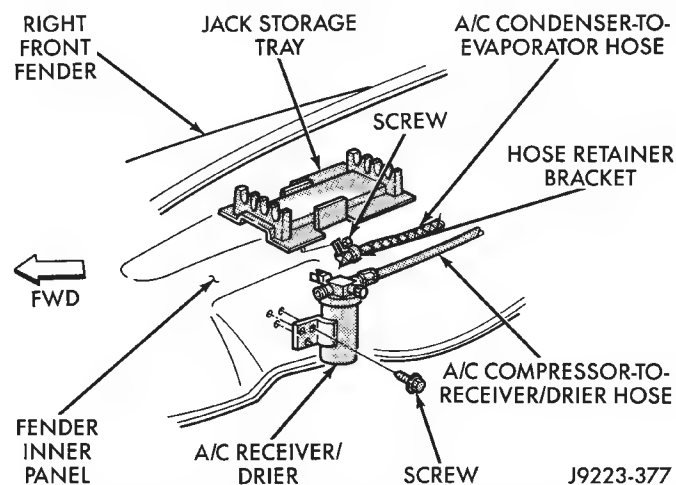
(4) Right fender:

- Remove the jack and related tools from the jack storage tray (Fig. 10).



**Fig. 10 Jack and Related Tools**

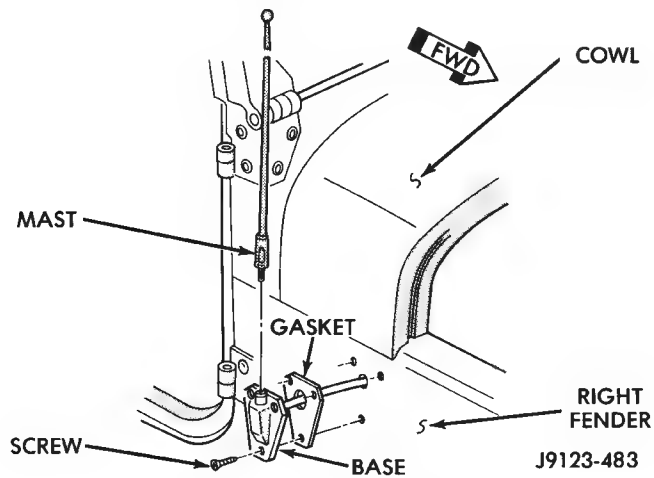
- Remove the jack storage tray and A/C receiver/drier from the fender inner panel (Fig. 11).



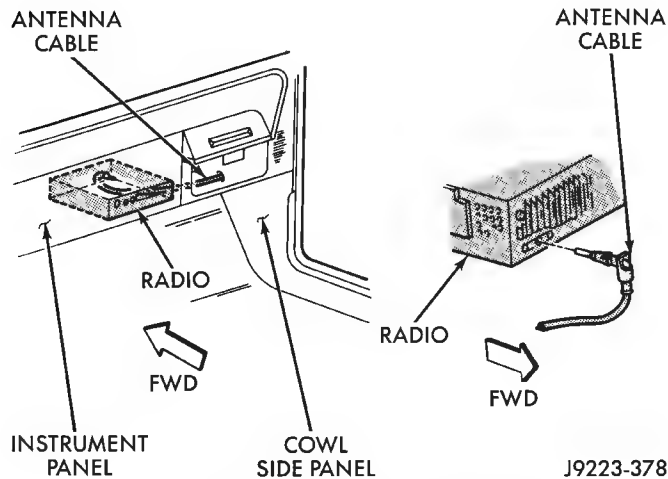
**Fig. 11 Jack Storage Tray and A/C Receiver/Drier**



- Remove the radio antenna (if equipped) from the fender outer panel (Fig. 12 and 13).



**Fig. 12 Radio Antenna**



**Fig. 13 Radio Antenna Cable**

(5) Disconnect the side marker lamp wire harness bulb socket and the hood holddown clamp (Fig. 14).

(6) Remove the screws that attach the battery tray support brackets to the right fender inner panel.

(7) Remove the fender front attaching bolts/nuts and brackets from the grille panel (Fig. 15).

(8) Remove the splash shields from the fender.

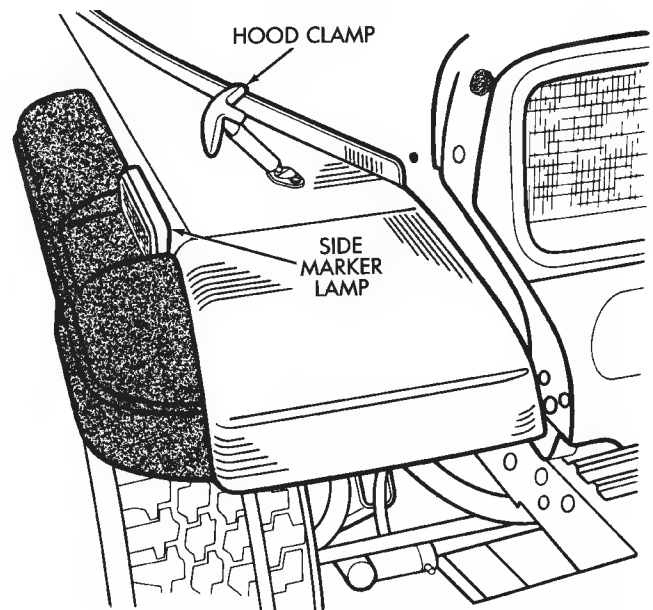
(9) Remove the bolts that attach the fender and rear supports to the cowl panel (Fig. 15).

(10) Pull the fender outward and lift it from the vehicle.

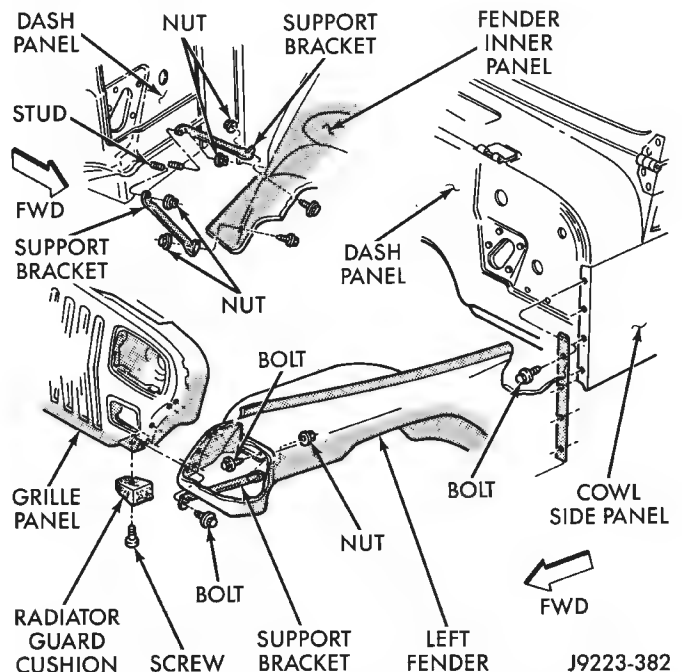
## INSTALLATION

(1) Position the fender and rear support brackets at the vehicle body and install the attaching washers and bolts (Fig. 15). Tighten the bolts and nuts to 18 N·m (156 in-lbs) torque.

(2) Install the fender front attaching bolts/nuts. Tighten the bolts and nuts to 18 N·m (156 in-lbs) torque.



**Fig. 14 Hood Holddown Clamp and Side Marker Lamp**



**Fig. 15 Fender Front and Rear Attaching Bolts/Nuts**

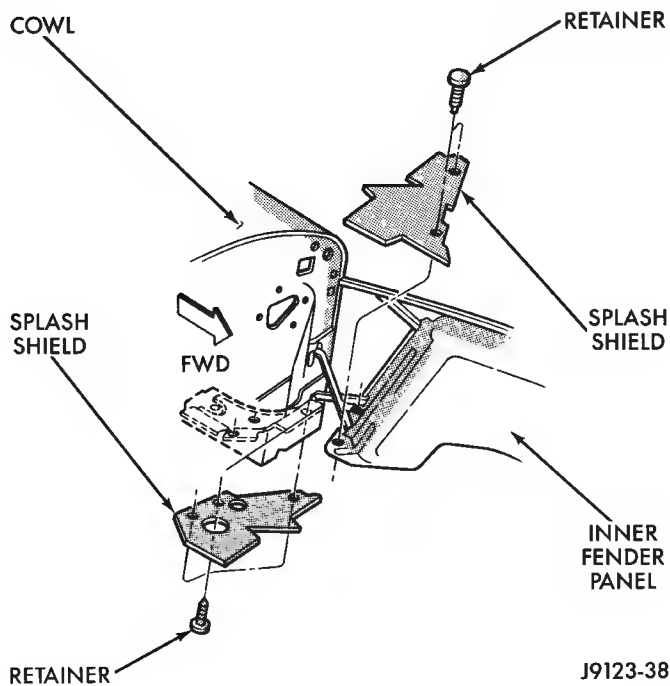
(3) Install the splash shields with the serrated retainers (Fig. 16).

(4) Install the battery tray support bracket-to-right fender inner panel screws. Tighten the screws to 18 N·m (156 in-lbs) torque.

(5) Connect the side marker lamp wire harness connector and the hood holddown clamp.

(6) Connect the radio antenna, if equipped.

(7) Install/connect all the components removed/disconnected from the fender inner panel.



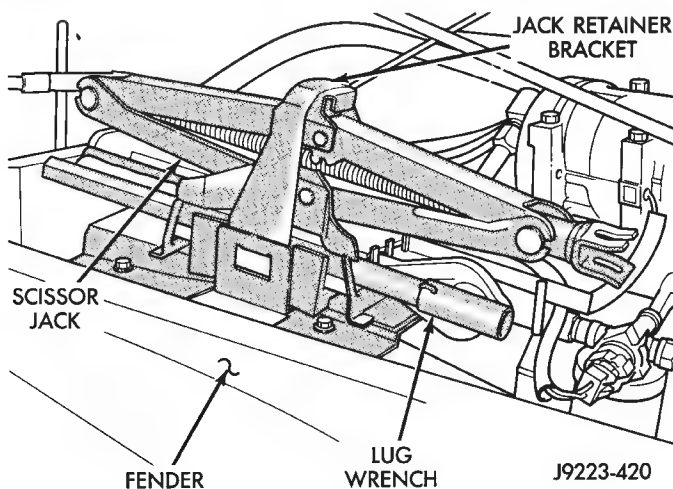
**Fig. 16 Fender Splash Shields**

(8) Left fender:

- Install the air cleaner housing and support bracket on the fender inner panel.
- Install the horn on the fender inner panel.
- Install the windshield washer fluid reservoir and coolant reserve bottle on the fender inner panel.

(9) Right fender:

- Install the jack storage tray and A/C receiver/drier on the fender inner panel.
- Install the jack and related tools in the jack storage tray (Fig. 17).



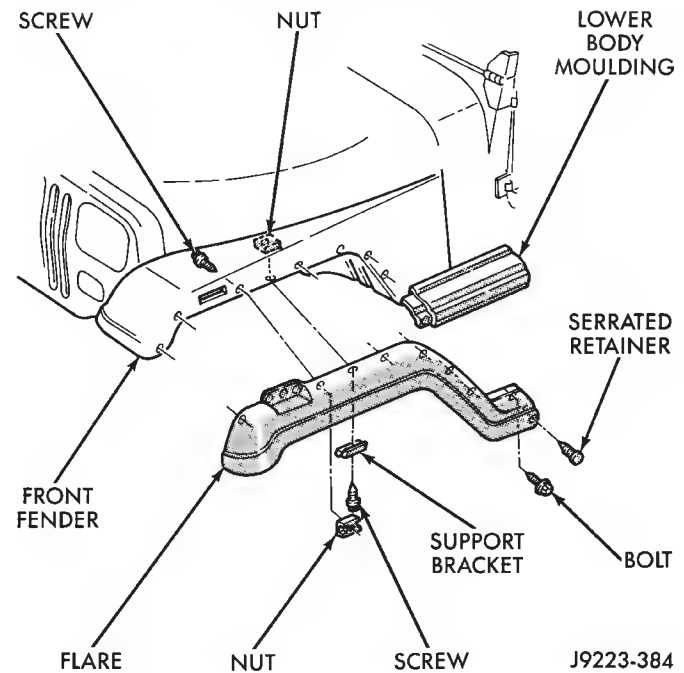
**Fig. 17 Jack Installation**

## FENDER FLARE—YJ

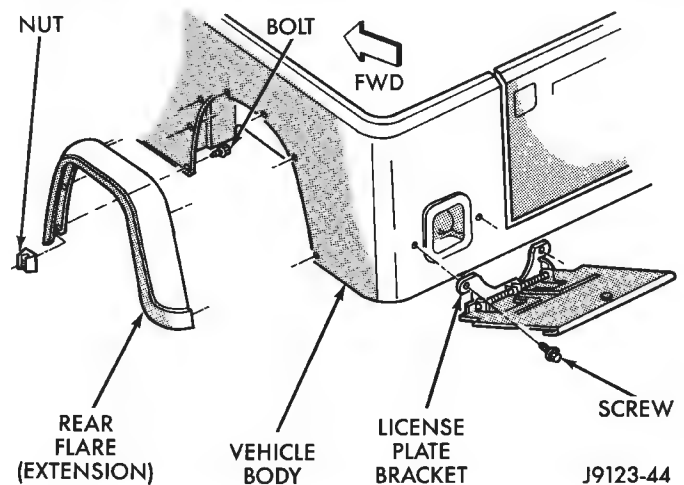
### REMOVAL

- (1) Remove the side marker lamp lens and disconnect the wire harness bulb socket.

- (2) Remove the serrated retainers, screws and plastic nuts that attach the flare to the front fender or rear wheelhouse (Fig. 18 and 19).



**Fig. 18 Front Fender Flare and Side Step Molding**



**Fig. 19 Rear Flare and license Plate Bracket**

- (3) Remove the flare and clean the contact surface on the body.

- (4) Inspect the flare serrated retainers and plastic nuts. Replace any hardware that is loose or damaged.

### INSTALLATION

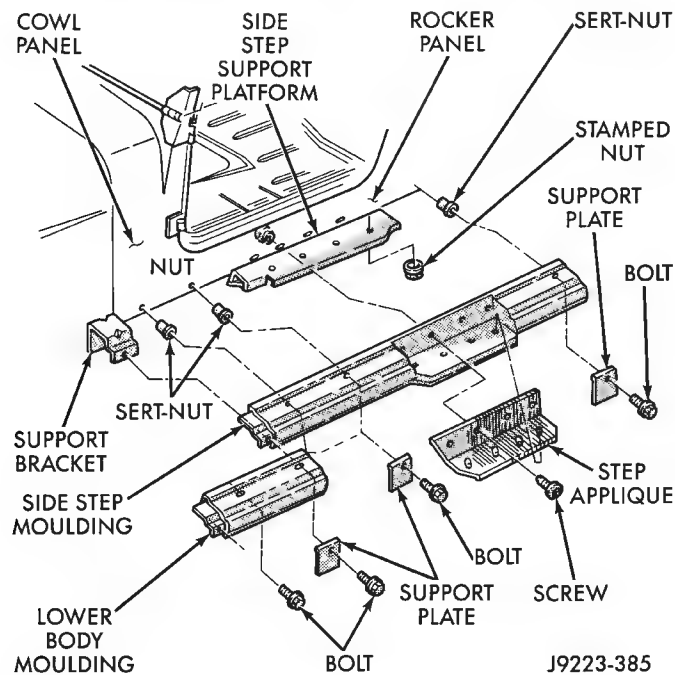
- (1) Clean the contact surface on the flare and position it on the front fender or wheelhouse.

- (2) Install the flare serrated retainers, screws and nuts. Tighten the screw at the lower molding to 11 N·m (96 in-lbs) torque. Tighten the upper screws to 11 N·m (96 in-lbs) torque.

## BODY SIDE STEP MOLDING—YJ

### REMOVAL/INSTALLATION

The body side moldings are attached to the step supports and to the body side panels (Fig. 20).



**Fig. 20 Side Step Support Platform and Molding/ Applique**

(1) It is necessary to loosen the fender flare retaining screws (Fig. 18 and 19) before removing the lower body and step moldings.

(2) Remove the retaining bolts and the lower body molding from the support bracket and cowl side panel (Fig. 20).

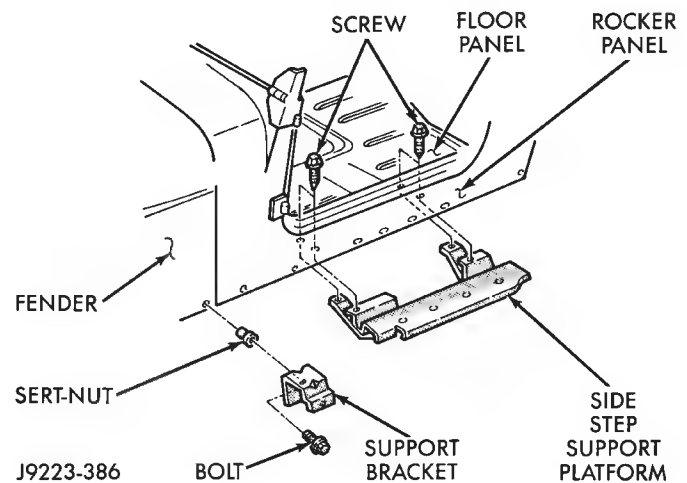
(3) Remove the retaining bolts/screws, the applique and the side step molding from the cowl side panel/ rocker panel (Fig. 20).

(4) If necessary, remove the retaining bolt/screws and the support bracket and side step support platform from the cowl side panel/rocker panel (Fig. 21).

### INSTALLATION

(1) If removed, install the support bracket and side step support platform on the cowl side panel/rocker panel. Install and tighten the support bracket retaining bolt to 11 N·m (96 in-lbs) torque. Install and tighten the support platform retaining screws to 41 N·m (30 ft-lbs) torque.

(2) Install the side step molding and applique on the cowl side panel/rocker panel. Install and tighten the molding retaining bolts to 11 N·m (96 in-lbs) torque. Install and tighten the applique retaining screws to 41 N·m (30 ft-lbs) torque.



**Fig. 21 Side Step Support Platform and Support Bracket**

(3) Install the lower body molding on the support bracket and cowl side panel with the retaining bolts. Tighten the molding retaining bolts to 11 N·m (96 in-lbs) torque.

(4) Tighten the fender flare retaining screws to 11 N·m (96 in-lbs) torque.

## WHEELHOUSE SPLASH LINERS—YJ

### REMOVAL

- (1) Remove the liner attaching screws (Fig. 22).
- (2) Remove the rivets that attach the liner to the wheelhouse (Fig. 22).
- (3) Remove the rivets that attach the liner rear splash shield to the rear crossmember.
- (4) Remove the liner from the wheelhouse.
- (5) Remove the rivets that attach the rear splash shield to the wheelhouse liner.

### INSTALLATION

- (1) Attach the rear splash shield to the wheelhouse liner with rivets.
- (2) Position the liner in the wheelhouse.
- (3) Install the screws and rivets to attach the liner to the wheelhouse.
- (4) Install the rivets to attach the rear splash shield to the crossmember.

## FENDER SPLASH APRONS—YJ

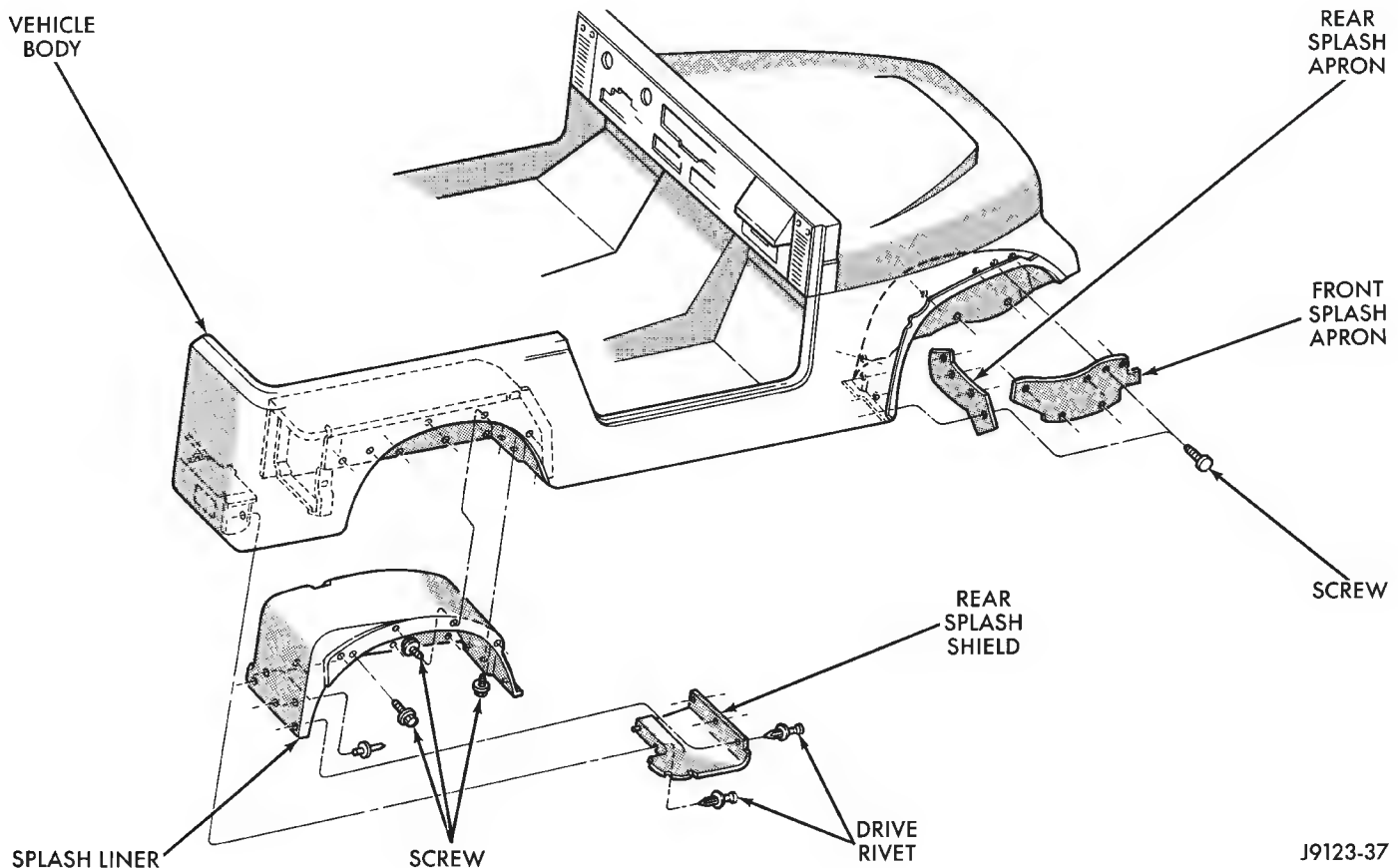
### REMOVAL

- (1) Remove the splash apron attaching screws (Fig. 22).
- (2) Remove the aprons from the fender well (Fig. 22).

### INSTALLATION

- (1) Position the aprons in the fender well (Fig. 22).
- (2) Install the screws to attach the splash aprons to the fender well.





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**Fig. 22 Wheelhouse Liner, Splash Shield and Splash Aprons**

## FENDER INNER SPLASH SHIELDS—YJ

### REMOVAL

- (1) Remove the splash shield retainers from the cowl panel and inner fender panel (Fig. 23).
- (2) Remove the splash shields from the inner fender and cowl panel (Fig. 23).

### INSTALLATION

- (1) Position the splash shields on the inner fender panel rear flange and on the cowl panel extension.
- (2) Install the splash shield retainers.

## BODY STRIPES/DECALS—YJ

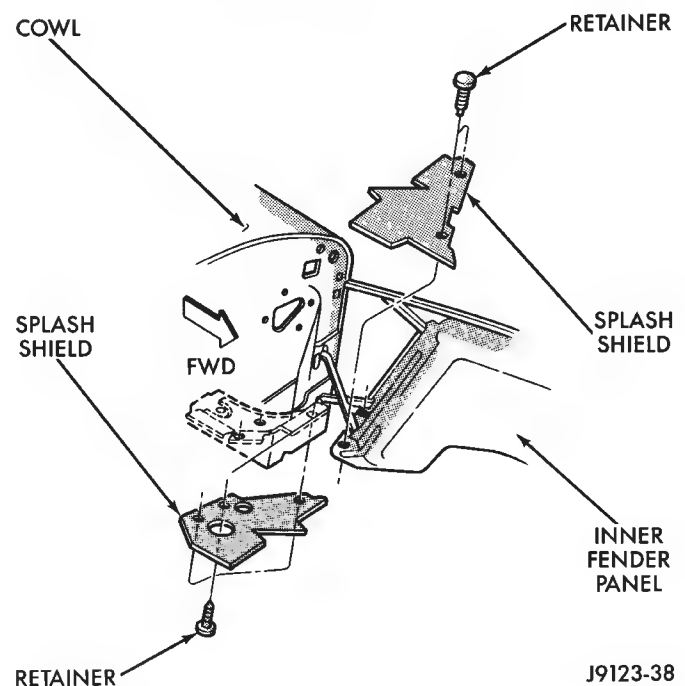
YJ body stripes and decals are durable tape stripes/decals with a adhesive backing.

### REPAIR

Small nicks, scratches can be touched-up with paint. A correct color match can be obtained by blending small amounts of appropriate paint colors.

To eliminate blisters and air bubbles in a body stripe/decals, pierce them with a needle or pin. Force the trapped air out of the hole.

A heat gun can also be used to remove small wrinkles and irregularities in a stripe/decals.



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**Fig. 23 Fender Inner Splash Shields**

### REQUIREMENTS

Body stripe/decals replacement because of collision damage requires that the metal repair and paint re-finish be completed first.

The work area temperature should be between 18°C (65°F) and 32°C (90°F). **A tape stripe/decals should not be replaced if the work area temperature is less than 18°C (65°F).**

The following equipment and material are necessary for body stripe/decals removal and installation:

- Commercial tape stripe/decals removal solution.
- Commercial adhesive removal solution.
- Liquid dish detergent (for the wetting solution).
- Mixture of wetting solution.
- Commercial wax and silicone removal solution.
- Isopropyl (rubbing) alcohol.
- Small squeegee (plastic or hard rubber).
- Water bucket and sponge.
- Clean wiping rags or paper towels.
- Heat gun (or infra-red heat bulb).
- Wax pencil.
- Sharp knife, single edge razor blade or X-acto knife.
- Pair of scissors.
- Needle or pin.

A wetting solution assures a better bond between the painted surface of the body and the tape stripe/decals. Prepare a supply of wetting solution by mixing two or three teaspoons of dish detergent with 1 gallon of water. **Do not use soap.**

**Too much detergent will reduce the effectiveness of the mixture.**

## REMOVAL

**The key to successful tape stripe/decals removal is to apply heat to area and slowly peel stripe/decals from panel.**

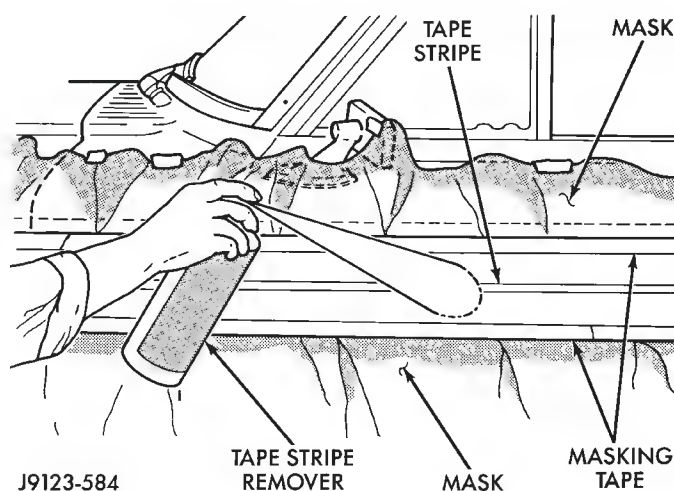
(1) Clean the repaired surface, adjacent panels and door openings as necessary.

(2) Start at one end of the tape stripe/decals and apply heat with a heat gun. Slowly peel the stripe/decals from the panel by pulling it back. **Do not pull the tape stripe/decals outward from the panel.**

**WARNING: USE THE TAPE STRIPE/DECAL REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.**

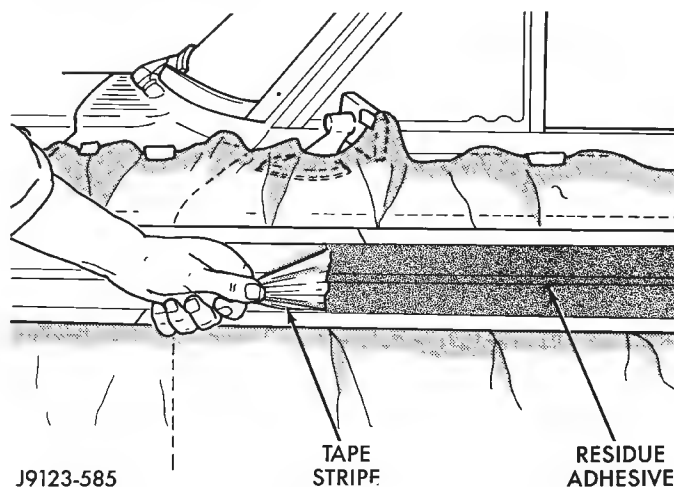
(3) A commercial tape stripe/decals removal solution can be used for stripe/decals removal at areas where a heat gun is ineffective:

- mask-off the body panel area surrounding the tape stripe/decals (Fig. 1).
- Move the removal solution spray back and forth across the complete length of the stripe/decals with a smooth, steady motion.
- Ensure that the complete stripe/decals is covered with the solution.
- Allow the stripe/decals removal solution to remain on the stripe/decals for 20 minutes.



**Fig. 1 Stripe/Decal Removal Solution Application**

- After 20 minutes, peel stripe/decals away from the flange and, starting at a corner, peel the stripe/decals from the body (Fig. 2).



**Fig. 2 Body Stripe/Decal Removal**

- If there is difficulty with peeling stripe/decals away from body use a squeegee for stripe/decals removal (Fig. 3).
- With the stripe/decals removed, scrape all the stripe/decals removal solution from the panel surface before proceeding.

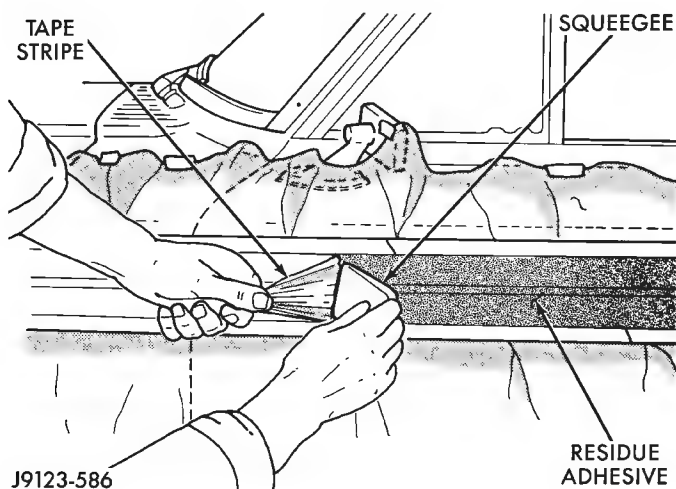
**WARNING: USE THE ADHESIVE REMOVAL SOLUTION IN A WELL-VENTILATED AREA ONLY.**

(4) After the stripe/decals is removed, remove any adhesive remaining on body with a removal solution.

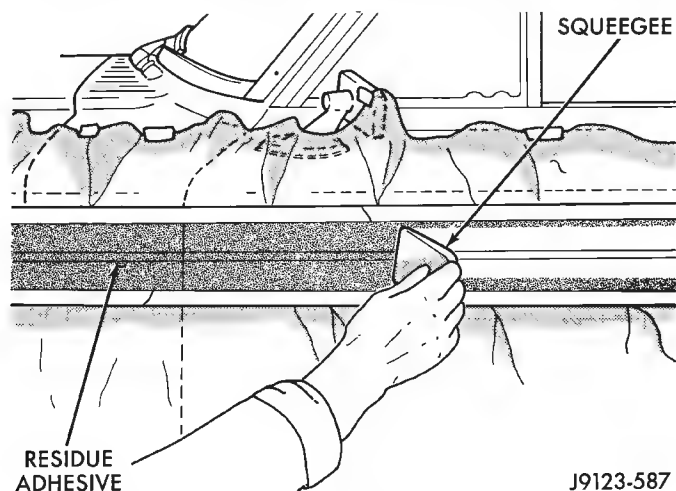
(5) After 3 to 5 minutes, use a squeegee to remove adhesive (Fig. 4).

(6) Remove the masking tape and mask from the panel.

(7) Wipe the panel with a cloth with a general purpose cleaning solution.



**Fig. 3 Body Stripe/Decal Removal With A Squeegee**



**Fig. 4 Adhesive Removal With A Squeegee**

#### **BODY PANEL SURFACE PREPARATION**

(1) The area that will be covered by the tape stripe/decals must be cleaned with a cleaning solution to remove any residue paint.

(2) Freshly painted surfaces must be thoroughly dry.

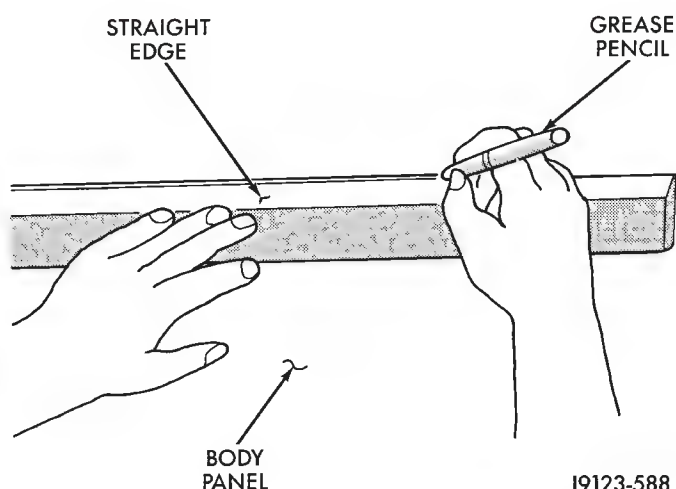
(3) Clean painted surface with a commercial wax and silicone removal solution. Wipe surface with a clean cloth and allow to dry.

#### **REPLACEMENT ON ONE PANEL**

For large tape stripes/decals, use a clean sponge and apply ample wetting solution to the adhesive side of the tape stripe/decals, and to the painted panel surface.

The wetting solution will permit ease of tape stripe/decals movement when positioning it on the panel.

(1) Align a straight edge with the existing tape stripe/decals ends and use a wax pencil to mark a line on the panel (Fig. 5).



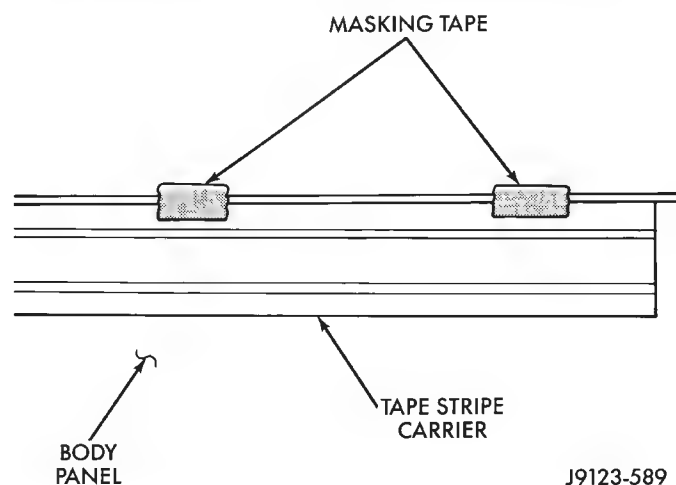
**Fig. 5 Stripe/Decal Alignment Reference Mark**

If applicable, the body panel character line can be used as the tape stripe/decals alignment reference.

(2) Position tape stripe/decals and carrier on panel and mark the required length with a wax pencil.

(3) Cut the stripe/decals and carrier at the required length with scissors.

(4) Position stripe/decals and carrier on panel and hold it in-place with pieces masking tape (Fig. 6).



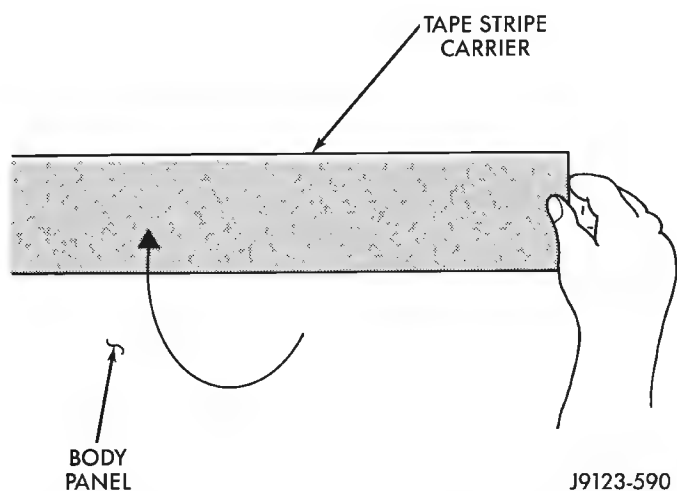
**Fig. 6 Tape Stripe/Decal and Carrier Retained On Body Panel**

(5) Lift the bottom edge of the tape stripe/decals and carrier, use the tape sections as hinges, and reverse the position of the stripe/decals and carrier (Fig. 7).

**CAUTION:** Always remove the carrier from the tape stripe/decals, never remove the tape stripe/decals from the carrier.

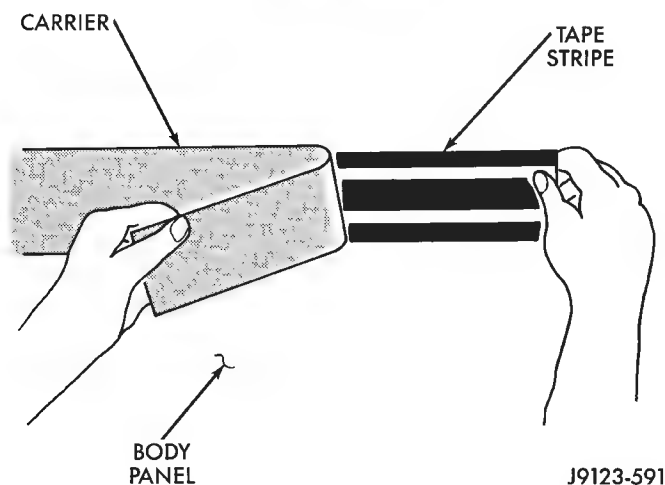
(6) Bend a corner of the carrier outward, separate the corner of the carrier from the tape stripe/decals.

(7) Separate approximately 15 cm (6 in) of the carrier from one end of the tape stripe/decals (Fig. 8).



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**Fig. 7 Tape Stripe/Decal and Carrier Reversed On Body Panel**



J9123-591

**Fig. 8 Tape Stripe/Decal and Carrier Separated**

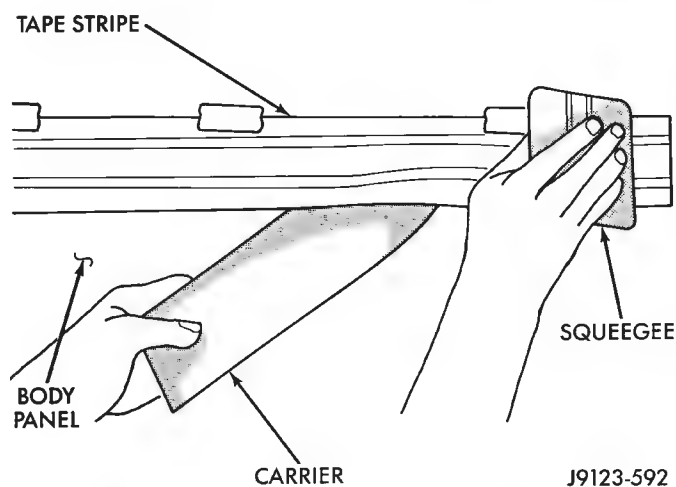
(8) Return the tape stripe/decals back to its original position. If a wetting solution is used, position the adhesive side of the tape stripe/decals on the panel. Apply wetting solution to the outside of the tape stripe/decals. Use firm strokes with a squeegee to adhere the tape stripe/decals to the body.

(9) Hold tape stripe/decals firmly against the panel surface while separating the carrier from the tape stripe/decals (Fig. 9).

(10) Where applicable, extend the tape stripe/decals 12 mm (1/2 in) beyond the door edge. Next, wrap it around on the flange and adhere it to the door flange (Fig. 10). **Use care to avoid trapping air under the tape stripe/decals.** Where necessary, trim excess tape stripe/decals.

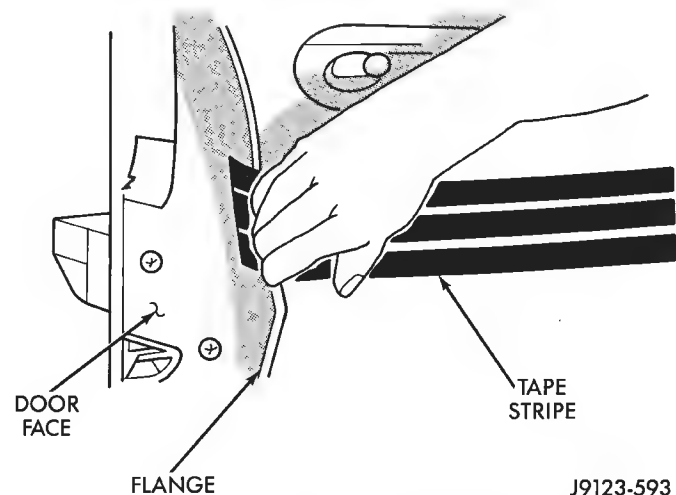
(11) If applicable, remove the cover from the face of the tape stripe/decals.

(12) Inspect tape stripe/decals with reflected light to check for defects that could have developed during the installation process. Remove all air and/or moisture bubbles.



J9123-592

**Fig. 9 Tape Stripe/Decal Installation**



J9123-593

**Fig. 10 Tape Stripe/Decal Installation On Door Flange**

### COMPLETE REPLACEMENT

The following procedure will simplify installation of a complete or large section(s) of tape stripe/decals on a vehicle (Fig. 11 and 12).

(1) Place the tape stripe/decals on a clean, flat surface with the carrier side facing upward.

(2) Bend a corner of the carrier inward, and separate the corner of the carrier from the tape stripe/decals.

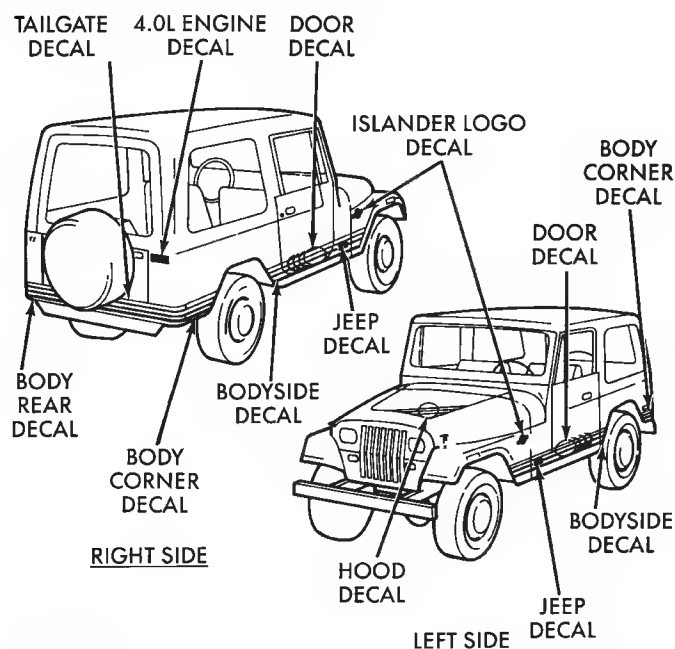
**CAUTION: Hold tape stripe/decals at extreme outer edges of the corners while separating the carrier.**

(3) Hold tape stripe/decals firmly against the flat surface and separate the carrier from the tape stripe/decals.

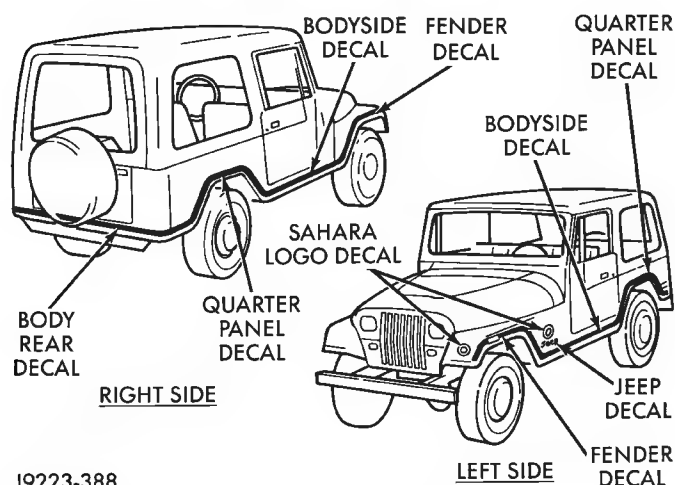
**If hot and humid, a slight jerking motion will aid separating the carrier from the tape stripe/decals.**

(4) Use a clean sponge and apply ample wetting solution to the tape stripe/decals adhesive and to the





J9223-387

**Fig. 11 Islander Decals**

J9223-388

**Fig. 12 Sahara Decals**

painted panel surface. The solution will permit ease of tape stripe/decals movement when positioning it on the panel.

(5) Position adhesive-coated side of tape stripe/decals on the panel with the bottom aligned with character line. Where applicable:

- align the end of the replacement tape stripe/decals with the end of the existing tape stripe/decals, and correctly align the index darts and index notches.

(6) If a complete replacement tape stripe/decals is not being installed:

- Position the replacement tape stripe/decals section at the center of the repair area.
- Align it with the existing tape stripe/decals and allow at least 12 mm (1/2 in) of the tape stripe/decals section to overlap the existing tape stripe/decals edges.

(7) Apply wetting solution to the outer side of the tape stripe/decals to allow the squeegee to freely slide while adhering the stripe/decals to the panel.

**CAUTION:** Avoid unnecessary pulling and stretching at the ends of the tape stripe/decals because this could cause it to tear.

(8) Position and slide a squeegee from the center to the ends of the tape stripe/decals. This will ensure complete bonding of the tape stripe/decals to the painted panel surface.

(9) If a wrinkle is trapped in the tape stripe/decals during the squeegee operation, stop. Lift wrinkled area and re-align stripe/decals with panel character line. **Do not lift the tape stripe/decals if only a few air bubbles exist.**

(10) Where applicable, allow 12 mm (1/2 in) extra tape stripe/decals to extend beyond the edges to be folded over.

(11) Fold the excess tape stripe/decals back onto inside flange area. **Use care to avoid trapping air under the tape stripe/decals.** Where necessary, trim excess tape stripe/decals.

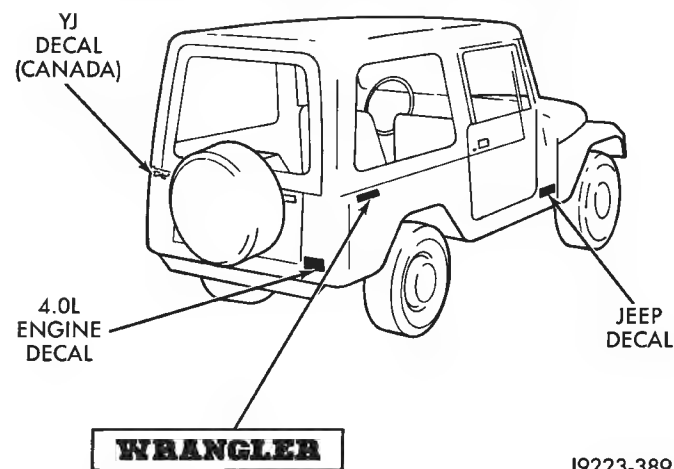
(12) Inspect tape installation with reflected light to detect any defects that could have developed during the installation.

(13) Remove all air and moisture bubbles from the tape stripe/decals with a needle or pin.

(14) Install any removed components and clean the vehicle as necessary.

## EXTERIOR NAMEPLATES (ADHESIVE-BACKED)—YJ

All of the YJ exterior nameplates (Fig. 13) are attached to the vehicle panels with adhesive.



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**Fig. 13 YJ Nameplate Decals**

## REMOVAL/INSTALLATION

(1) With the use of a putty knife, carefully pry the nameplate from the body outer panel.

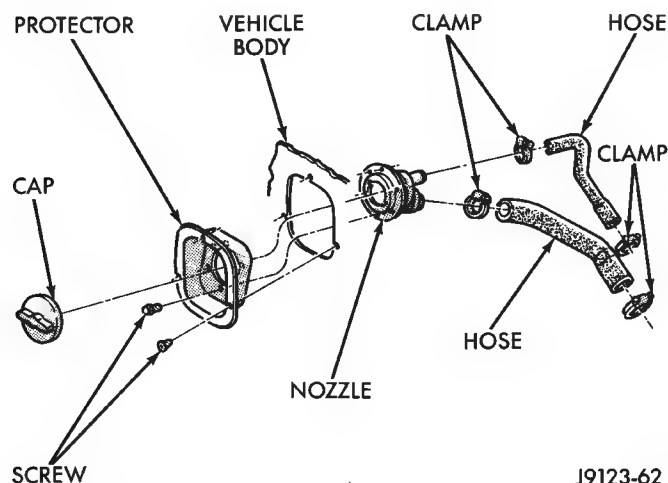
(2) Clean the panel surface.

(3) Position the replacement nameplate on the panel and apply inward force to seat it.

## FUEL FILLER PROTECTOR/NOZZLE—YJ

### REMOVAL

(1) Either remove it or support the license plate bracket away from the fuel filler protector and nozzle (Fig. 1).



**Fig. 1 Fuel Filler Cap, Protector, Nozzle and Hoses**

- (2) Remove the cap from the nozzle.
- (3) Loosen the clamps at the nozzle and separate the hoses from the nozzle.
- (4) Remove the screws that attach the protector to the body panel.
- (5) Remove the protector and nozzle from the opening in the body.
- (6) Remove the screws and separate the nozzle from the protector (Fig. 1).

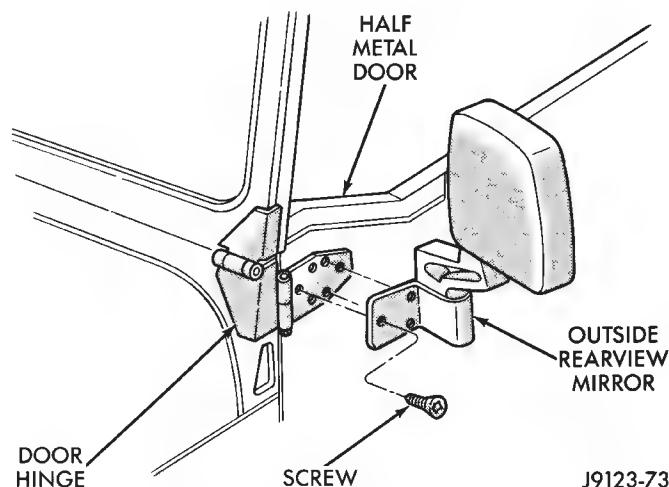
### INSTALLATION

- (1) Position the fuel filler nozzle on the protector and install screws. Tighten the screws to 2 N·m (20 in-lbs) torque.
- (2) Position the protector and the nozzle in body panel opening, and install. Tighten the screws to 3 N·m (25 in-lbs) torque.
- (3) Attach the hoses to the tubes and tighten the clamp screws to 3 N·m (30 in-lbs) torque.
- (4) Install the cap on the nozzle.
- (5) If removed, install the license plate bracket.

## HALF METAL DOOR MIRROR (EXTERNAL)—YJ

### REMOVAL

- (1) Remove the mirror base attaching screws from the door hinge (Fig. 2).
- (2) Remove the mirror from the door hinge (Fig. 2).



**Fig. 2 Half Metal Door Mirror**

### INSTALLATION

- (1) Clean the door hinge-mirror base contact surface.
- (2) Position the mirror base at the door hinge.
- (3) Install the mirror base attaching screws in the door hinge. Tighten the attaching screws to 11 N·m (96 in-lbs) torque.

## TAILGATE—YJ

### REMOVAL

- (1) Remove the tailgate hinge screws with a Torx bit (Fig. 3).
- (3) Disengage the latch and remove the tailgate from the vehicle.

### INSTALLATION

- (1) Position and align the tailgate in the body opening and engage the latch.
- (2) Install the hinge retaining screws. Tighten the screws to 18 N·m (156 in-lbs) torque.

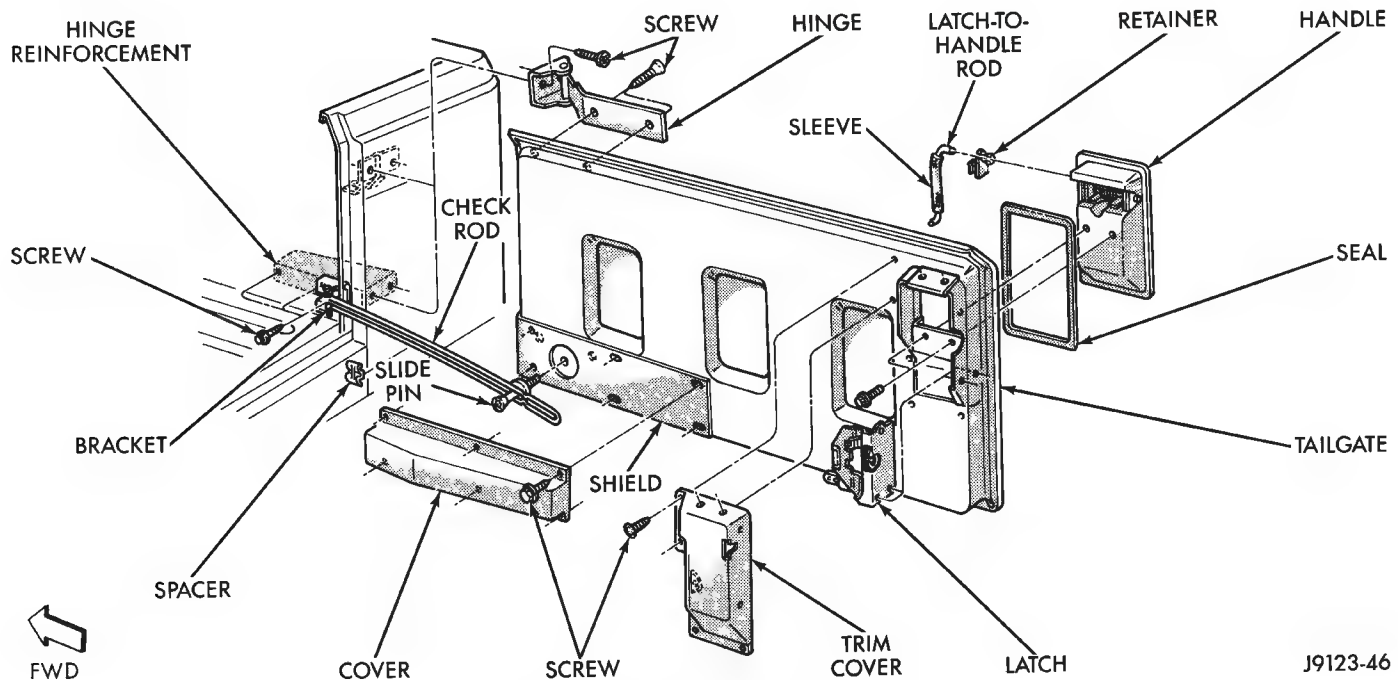
## TAILGATE HINGE—YJ

### REPLACEMENT

- (1) Remove the hinge retaining screws and remove the hinge (Fig. 3).
- (2) Prepare and paint the replacement hinge to match the body paint color.
- (3) Lubricate the hinge with spray lubricant.
- (4) Position the hinge on the body and install the retaining screws (Fig. 3). Tighten the screws to 18 N·m (156 in-lbs) torque.
- (5) Align the tailgate with the hinge and install the hinge-to-tailgate screws. Tighten the screws to 18 N·m (156 in-lbs) torque.

## TAILGATE ADJUSTMENT—YJ

- (1) Loosen the tailgate hinge-to-body screws (Fig. 3).



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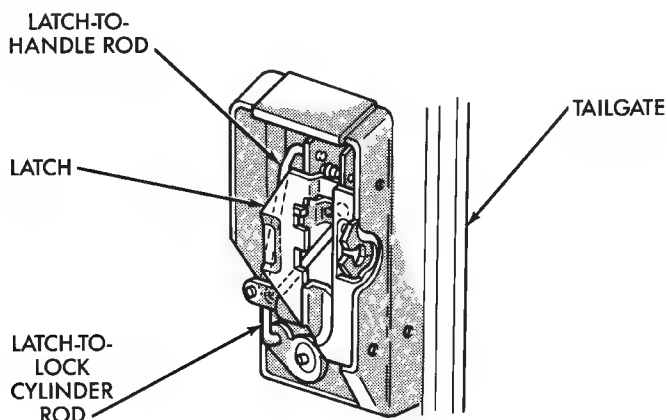
**Fig. 3 Tailgate and Components**

(2) Align the tailgate in the body opening and tighten the hinge screws to 18 N·m (156 in-lbs) torque.

## TAILGATE LATCH AND RELEASE HANDLE—YJ

### REMOVAL

- (1) Open the tailgate and remove the latch trim cover (Fig. 3).
- (2) Remove the tailgate latch-to-handle rod retainer and disconnect the rod from the latch (Fig. 3).
- (3) Remove the latch-to-tailgate screws (Fig. 3).
- (4) Remove the retainer clip from the latch-to-lock cylinder rod and disconnect the rod from the lock cylinder (Fig. 4).



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**Fig. 4 Tailgate Latch and Rods**

(5) Remove the retainer clip from the latch-to-release handle rod and disconnect the rod from the release handle (Fig. 4).

- (6) Remove the latch from the tailgate.
- (7) Remove the latch release handle screws.
- (8) Remove the release handle and seal from the tailgate.

### INSTALLATION

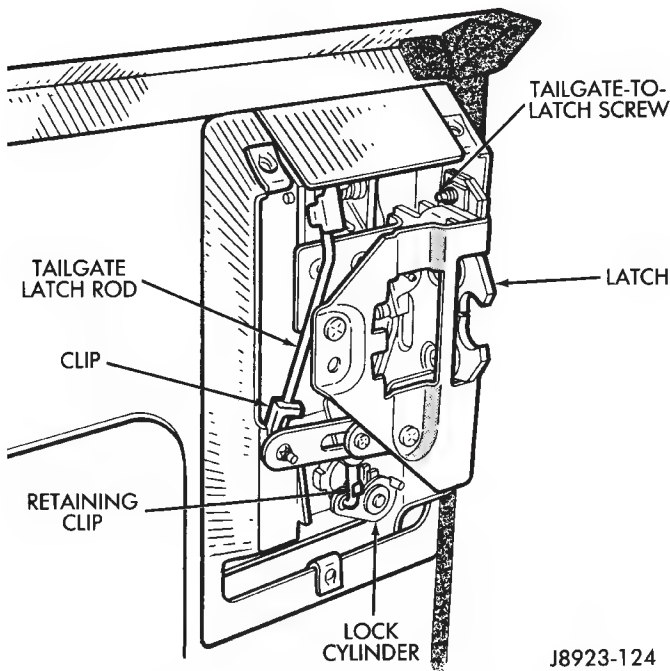
- (1) Position seal latch release handle on the tailgate and install screws. Tighten the screws to 6 N·m (50 in-lbs) torque.
- (2) Position the latch at the tailgate.
- (3) Install the latch retaining screws and connect the latch rods and rod retainers (Fig. 4 and 5). Tighten the screws to 6 N·m (50 in-lbs) torque.
- (4) Install the latch cover. Tighten the screws to 11 N·m (96 in-lbs) torque.

## TAILGATE LOCK CYLINDER—YJ

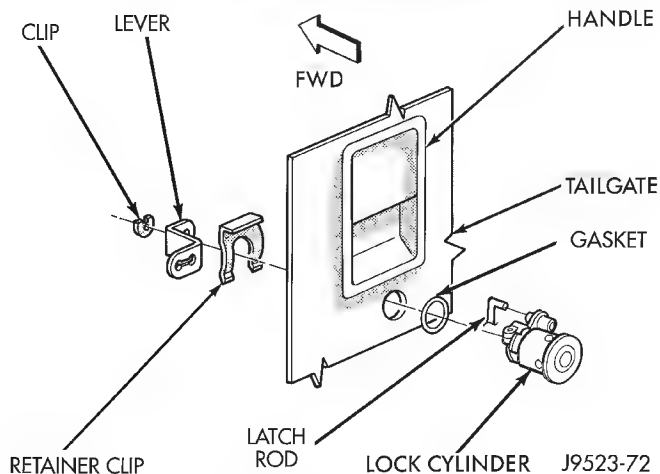
### REMOVAL

- (1) Open the tailgate.
- (2) Remove the latch cover.
- (3) Remove the lock cylinder retainer clip (Fig. 6).
- (4) Disengage the lock cylinder lever (Fig. 6) from the latch-to-lock cylinder rod.
- (5) Remove the lock cylinder from the tailgate opening.
- (6) Remove the E-clip and separate the lever from the lock cylinder (Fig. 6).





**Fig. 5 Tailgate Latch Installation**



**Fig. 6 Tailgate Lock Cylinder Removal/Installation**

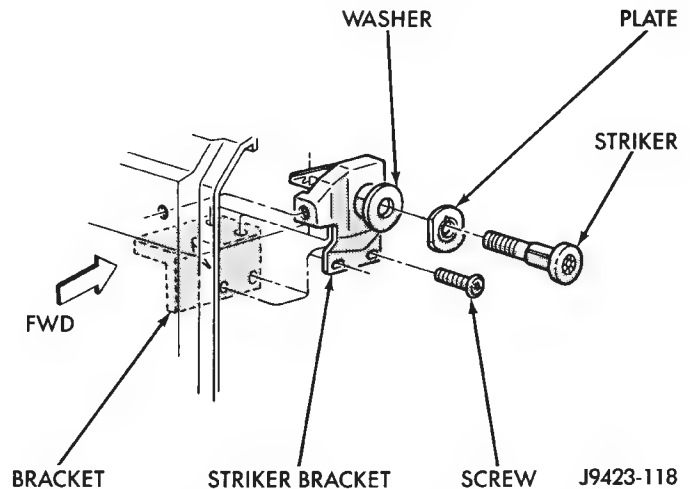
#### INSTALLATION

- (1) Inspect the retainer clip and the gasket. As applicable, replace if distorted or damaged.
- (2) Attach the lever to the lock cylinder with the E-clip and position the lock cylinder in the tailgate opening.
- (3) Connect the latch-to-lock cylinder rod to the lever.
- (4) Install the lock cylinder retainer clip.
- (5) Install the latch cover. Tighten the screws to 11 N·m (96 in-lbs) torque.

#### TAILGATE LATCH STRIKER—YJ

##### REMOVAL

- (1) Remove the striker from the bracket with a Torx bit (Fig. 7).



**Fig. 7 Tailgate Latch Striker Removal/Installation**

- (2) Remove the plate, shim and washer from the bracket.
- (3) Remove the retaining screws and the striker bracket from the tailgate reinforcement bracket (Fig. 7).

##### INSTALLATION

- (1) Position the striker bracket on the tailgate and install the retaining screws in the reinforcement bracket. Tighten the screws to 11 N·m (96 in-lbs) torque.
- (2) Position the washer, shim and plate on the striker bracket.
- (3) Install the striker in the bracket with a Torx bit. Tighten the striker to 71 N·m (52 ft-lbs) torque while retaining the striker plate in-place.

#### TAILGATE WEATHERSTRIP SEAL—YJ

##### REMOVAL

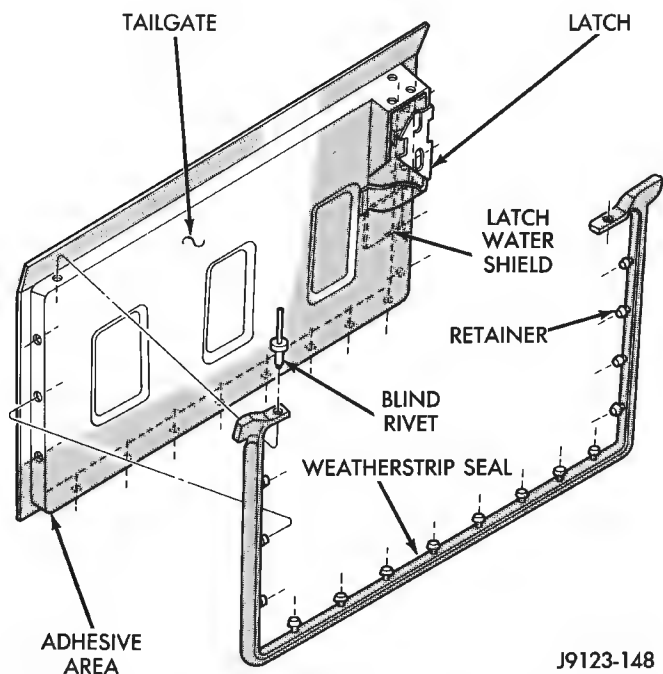
- (1) Remove the seal retaining rivets (Fig. 8).
- (2) Carefully separate the seal and the retainers from the tailgate edge.
- (3) If the original seal will be installed, clean it with a dampened cloth.
- (4) Clean the seal contact surface on the tailgate (Fig. 8).
- (5) Inspect the seal and retainers. Replace the seal if damaged.

##### INSTALLATION

- (1) Apply weatherstrip adhesive around the perimeter of the seal contact surface on the tailgate edge (Fig. 8).
- (2) Position the seal on the tailgate and press it against the inner panel and flange.
- (3) Install the seal retaining rivets (Fig. 8).

**CAUTION:** Do not apply graphite, brake fluid or wax to the seal.





J9123-148

**Fig. 8 Tailgate Weatherstrip Seal Removal/Installation**  
**HARD TOP LIFTGATE GLASS—YJ**

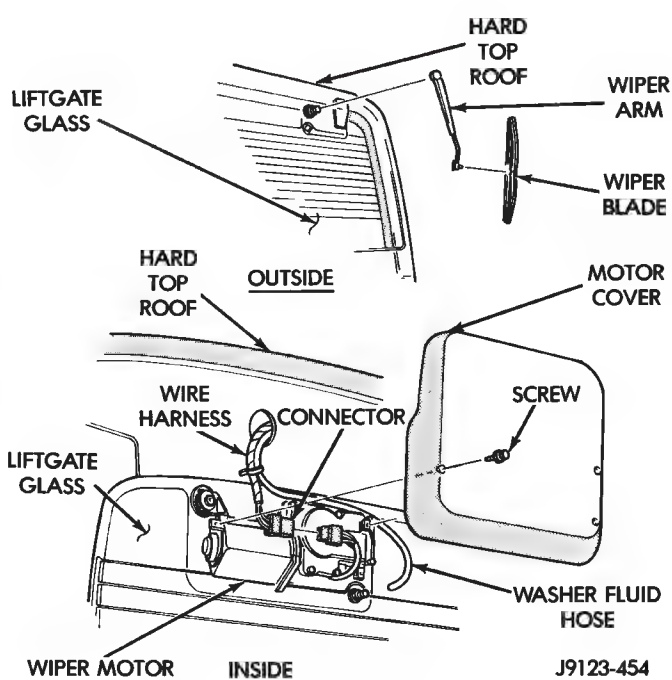
#### REMOVAL

(1) Disconnect the rear defroster/dome lamp wire harness connectors.

(2) Remove the wiper motor cover. Disconnect the wiper motor wire harness connector and the washer fluid hose (Fig. 1).

(3) Remove the wiper arm and blade (Fig. 1).

**WARNING: DO NOT REMOVE THE LIFTGATE SUPPORT RODS WITH THE LIFTGATE CLOSED. THE SUP-**



J9123-454

**Fig. 1 Liftgate Wiper Motor**

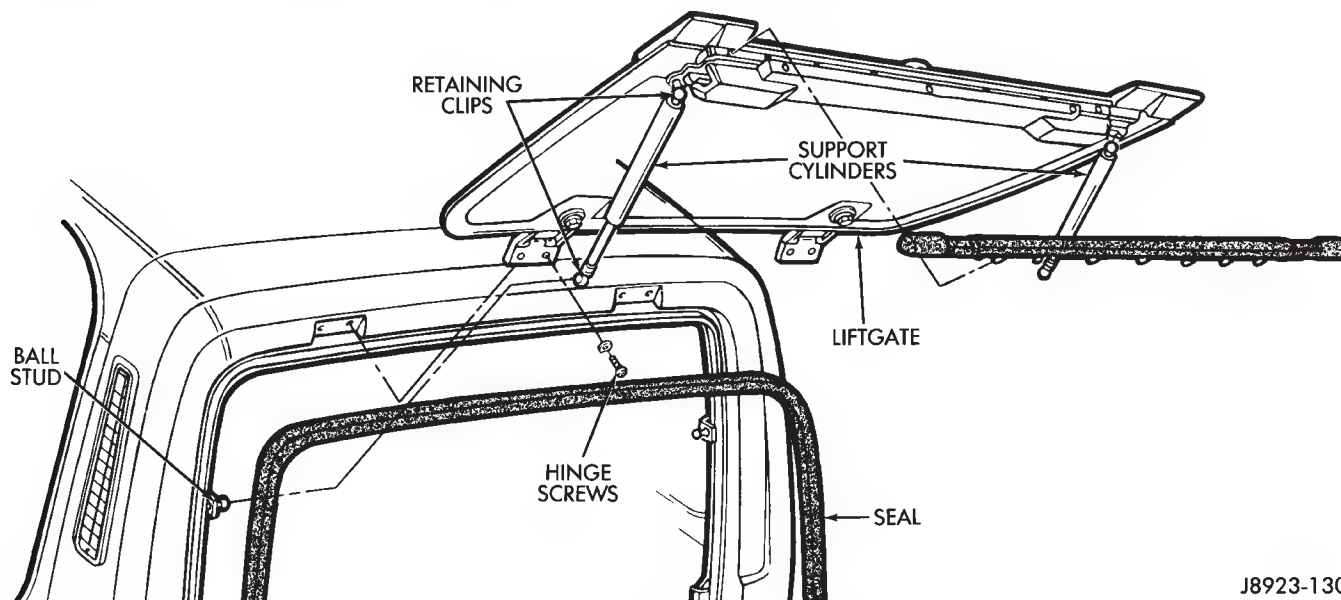
**PORT ROD PISTONS ARE OPERATED BY HIGH PRESSURE GAS AND COULD CAUSE PERSONAL INJURY AND/OR VEHICLE DAMAGE IF THEY ARE REMOVED WITH THE PISTONS COMPRESSED (LIFTGATE CLOSED). ONCE REMOVED, DO NOT ATTEMPT TO DISASSEMBLE OR REPAIR THE SUPPORT RODS.**

(4) Open the tailgate (Fig. 2).

(5) Remove the support rod cylinder retaining clips at both ends of each support rod cylinder (Fig. 2)

(6) Pull the support rods off the ball studs.

(7) Remove the liftgate glass hinge bolts (Fig. 2).



J8923-130

**Fig. 2 Liftgate Removal/Installation**

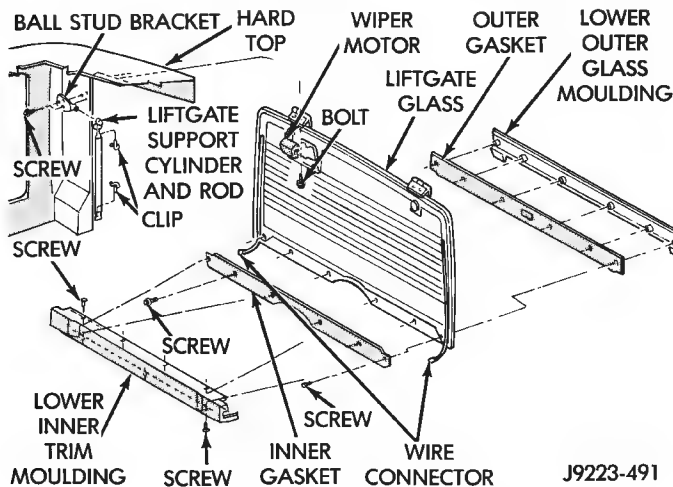
- (8) Separate the liftgate glass from the hard top.
- (9) Remove the weatherstrip seal (Fig. 2), if necessary.

### INSTALLATION

- (1) Assemble the liftgate components, if necessary.
- (2) Position the liftgate glass in the hard top opening and install the hinge bolts. Do not tighten the bolts.
- (3) Adjust the liftgate glass to fit the hard top opening.
- (4) Tighten the hinge bolts to 11 N·m (95 in-lbs) torque.
- (5) Position the support rod cylinders on the ball studs.
- (6) Install the support rod cylinder retainer clips.
- (7) Connect the wiper motor wire harness connector and the washer fluid hose. Install the wiper motor cover (Fig. 1).
- (8) Install the wiper arm and blade.
- (9) Connect the rear window defroster/dome lamp wire harness connectors.

### DISASSEMBLY

- (1) Remove retaining screws and the lower, inner trim molding from the latch panel (Fig. 3).



**Fig. 3 Liftgate and Components**

- (2) Remove the retaining screws and the latch panel, inner gasket, outer gasket, and the lower, outer liftgate molding from the liftgate (Fig. 3).
- (3) Refer to Group 8, Electrical for service information involving the wiper motor and the defroster.
- (4) If necessary, remove the latch strikers and the ball stud brackets from the hard top inner panel (Fig. 3).

### ASSEMBLY

- (1) If removed, install the latch strikers and the ball stud brackets on the hard top inner panel (Fig. 3).

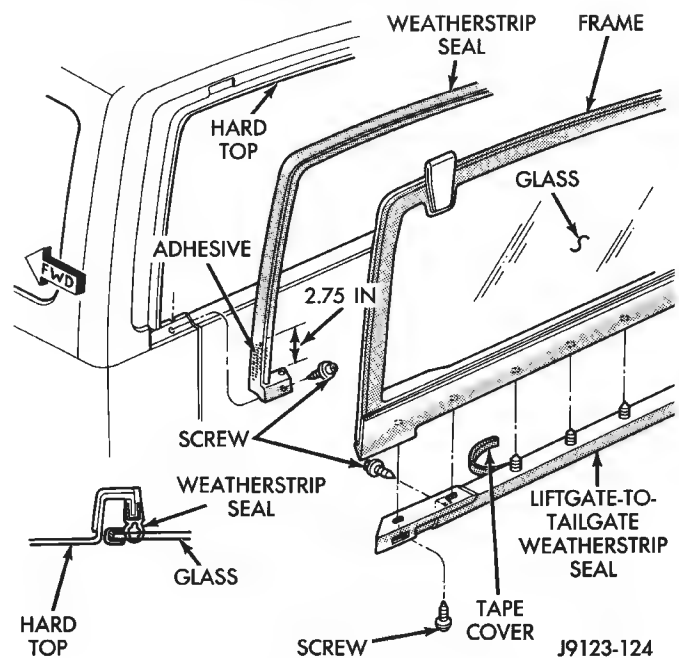
- (2) Position the latch panel, and gaskets, and liftgate molding on liftgate and install screws (Fig. 3). Tighten the screws to 7 N·m (60 in-lbs) torque.

- (3) Position the lower, inner trim molding on the latch panel. Install screws (Fig. 3). Tighten the screws to 2 N·m (12 in-lbs) torque.

### LIFTGATE GLASS WEATHERSTRIP SEAL REPLACEMENT—YJ

#### REMOVAL

- (1) Remove the liftgate glass from the hard top. If necessary, refer to the removal procedure.
- (2) Remove the retaining screws from the liftgate-to-tailgate weatherstrip seal (Fig. 4).



**Fig. 4 Liftgate Glass Weatherstrip Seals**

- (3) Carefully separate the seal and retainers from the bottom of the liftgate glass.
- (4) Remove the hard top weatherstrip seal retaining screws from body rear panels.
- (5) Carefully separate the weatherstrip seal from the rear panels and the hard top.
- (6) Remove the residual adhesive from the seal contact areas.

#### INSTALLATION

- (1) Remove the tape cover and position the liftgate-to-tailgate weatherstrip seal at the bottom of the liftgate glass (Fig. 4).
- (2) Carefully insert the retainers into the holes and press the seal against the bottom of the liftgate glass.
- (3) Install the liftgate-to-tailgate weatherstrip seal screws. Tighten the screws securely.

(4) Apply weatherstrip adhesive to the hard top weatherstrip seal (Fig. 4).

(5) Carefully position the weatherstrip seal on the rear panels and the hard top.

(6) Press the seal onto the hard top flange and ensure that it is correctly seated on the flange.

(7) Install the seal retaining screws in the rear panels and tighten them securely.

### HARD TOP—YJ

The hard top is constructed of compressed molded fiberglass and painted to a special spatter paint. The hard top can be removed for service access or for other purposes.

### REMOVAL

**CAUTION:** When removing the hard top, avoid damaging the foam sealant between the hard top and body panels.

(1) Remove the screws that attach the hard top to the windshield frame (Fig. 1 and 2).

(2) Remove the screws that attach the hard top to the rear beltline moldings, body panels and tapping plates (Fig. 1).

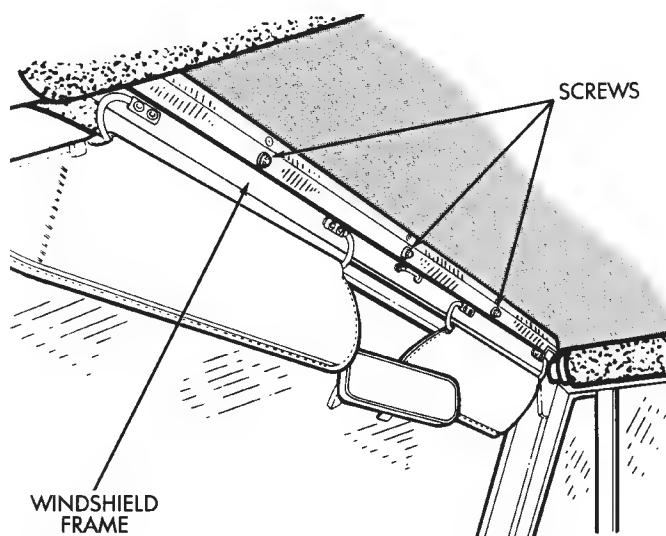
(3) Disconnect the wire harness connector and washer fluid hose. (Fig. 3).

(4) Remove the beltline moldings and the hard top from the vehicle (Fig. 1).

### INSTALLATION

(1) Inspect the hard top seals for damage and replace, if necessary.

(2) Carefully position the hard top on the vehicle.



J8923-127

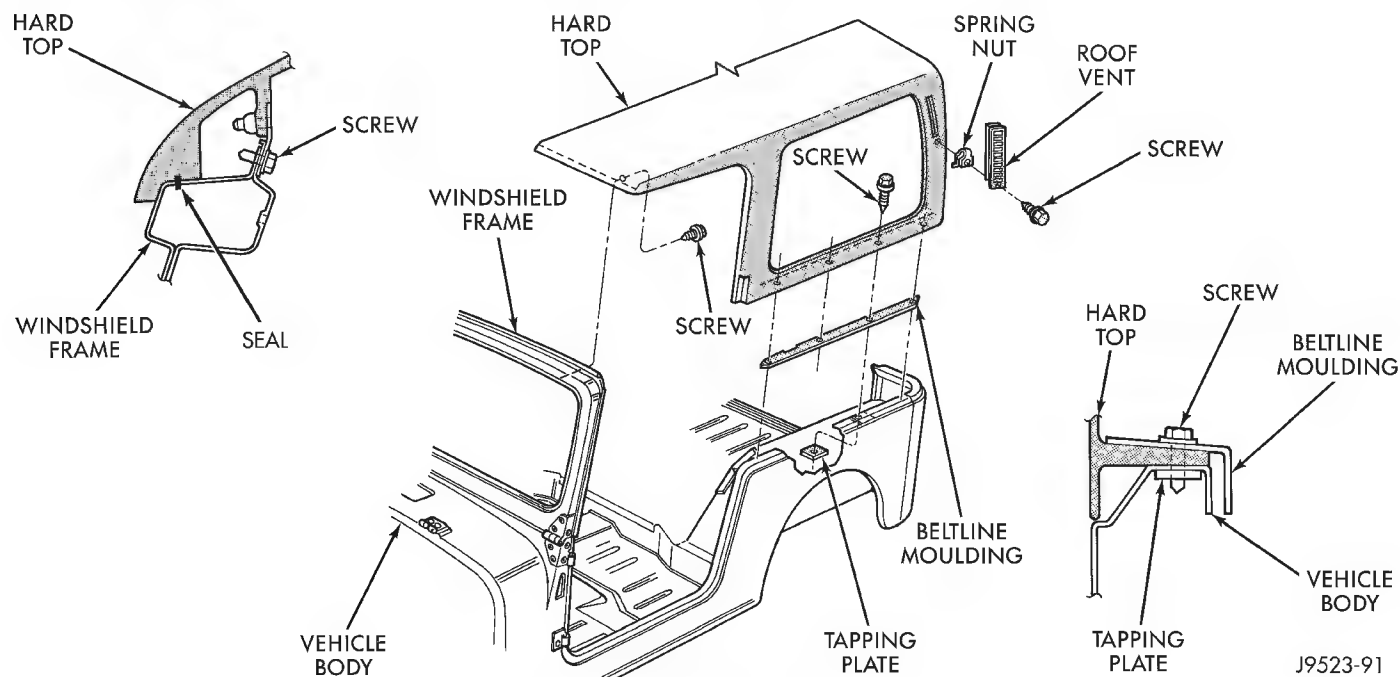
**Fig. 2 Hard Top-To-Windshield Frame Screws**

**CAUTION:** When installing the hard top, avoid damaging the foam sealant located between the top and body panels.

(3) Position the beltline molding on the hard top flange and install the screws. Tighten the screws securely.

(4) Connect the wire harness connectors.

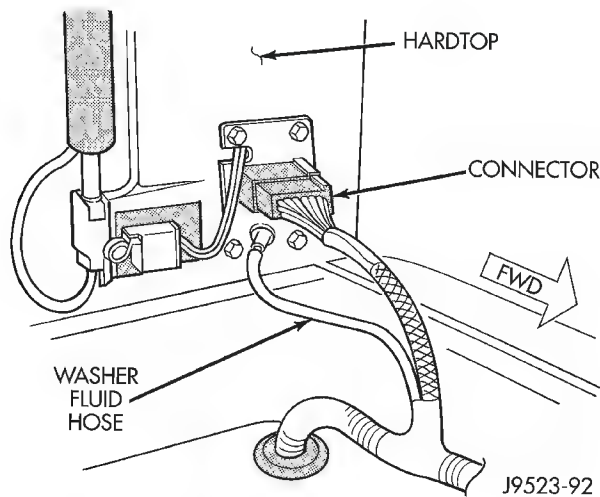
(5) Install the screws to attach the hard top to the windshield frame. Tighten the screws securely.



J9523-91

**Fig. 1 Hard Top Removal/Installation**





**Fig. 3 Wire Harness Connection**

## HARD TOP ROOF VENT—YJ

### REMOVAL/INSTALLATION

- (1) Remove the roof vent retaining screw from the spring nut (Fig. 1).
- (2) Remove the roof vent from the hard top.
- (3) Position the roof vent on the hard top and install the retaining screw.

### HARD TOP REPAIR—YJ

The hard top fiberglass material can be repaired. The required repair materials include:

- Fiberglass mat or cloth.
- Fiberglass resin and hardener.
- structural adhesive (3M brand or an equivalent product).
- Glazing putty.
- Aluminum foil.
- Plastic spreader.

### HARD TOP HOLE REPAIR

- (1) Use a grinder to remove the paint and outline the damaged area. Use a grade 24 grit disc for paint removal.
- (2) Grind the outlined surface area again to a 50 grit disc to prevent coarse scratches from appearing in the final finish.
- (3) If cracks extend from the hole, it will be necessary to stop-drill the crack(s) with a 3-mm (1/8-in) diameter drill bit.
- (4) Position a fiberglass mat or cloth on the repair surface area. Cut the mat to allow a 2.5-cm (1-in) overlap of the repair surface area.
- (5) Clean the repair surface area.
- (6) Place the fiberglass cloth on aluminum foil.
- (7) Pour the fiberglass resin into a clean container.
- (8) Mix the appropriate amount of hardener and resin. Follow the manufacturers instructions.
- (9) Apply the hardener/resin mixture to both sides of the fiberglass cloth.

(10) Place the fiberglass cloth over the repair surface area. Next, place the aluminum foil over the cloth. Use a plastic spreader to smooth-out the cloth and resin. Use firm pressure to remove air bubbles and to smooth-out the cloth.

(11) Allow the resin to cure.

(12) Smooth-out the surface area to the contour of the hard top with a 50-grit disc.

(13) Apply plastic filler to complete the repair. Finish smoothing the surface area with 80-grit paper.

(14) Repeat the previous step on the inside surface area of the hard top.

(15) Featheredge the repaired surface area.

(16) Prime the repaired surface area with Ditzler Epoxy Chromate Primer (DP-40/401), or an equivalent product.

(17) Apply surface primer to the surface area.

(18) Sand the surface area for paint preparation. After sanding, re-prime the surface area, if necessary.

(19) Prime the surface area for the color coat.

(20) Color coat the repaired surface area.

### FRACTURE REPAIR

(1) Use a grinder to remove the paint (from both, the inner and outer surface areas of the hard top) and to outline the damaged area.

(2) Stop-drill the crack(s) with a 3-mm (1/8-in) diameter drill bit.

(3) Bevel the edges of the crack(s) on both sides with a rotary file.

**The edges should be beveled on the inside and outside of the top to ensure sufficient surface area for good bonding.**

(4) Complete the repairs with fiberglass cloth and resin as described above in the hard top hole repair procedure.

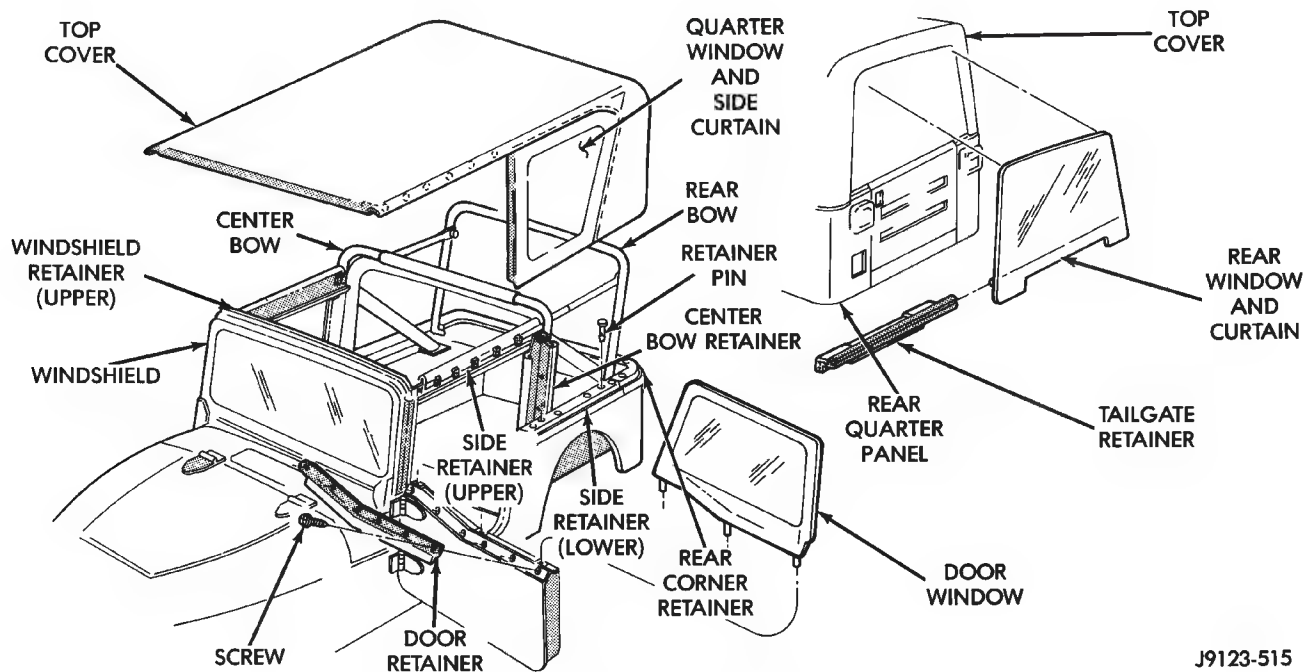
### TEXTURED PAINT REPAIR

The textured paint applied to hard tops is available from Mopar Parts sources. The paint supplied will duplicate the original texture on the hard top.

### SOFT TOP SERVICE INFORMATION—YJ

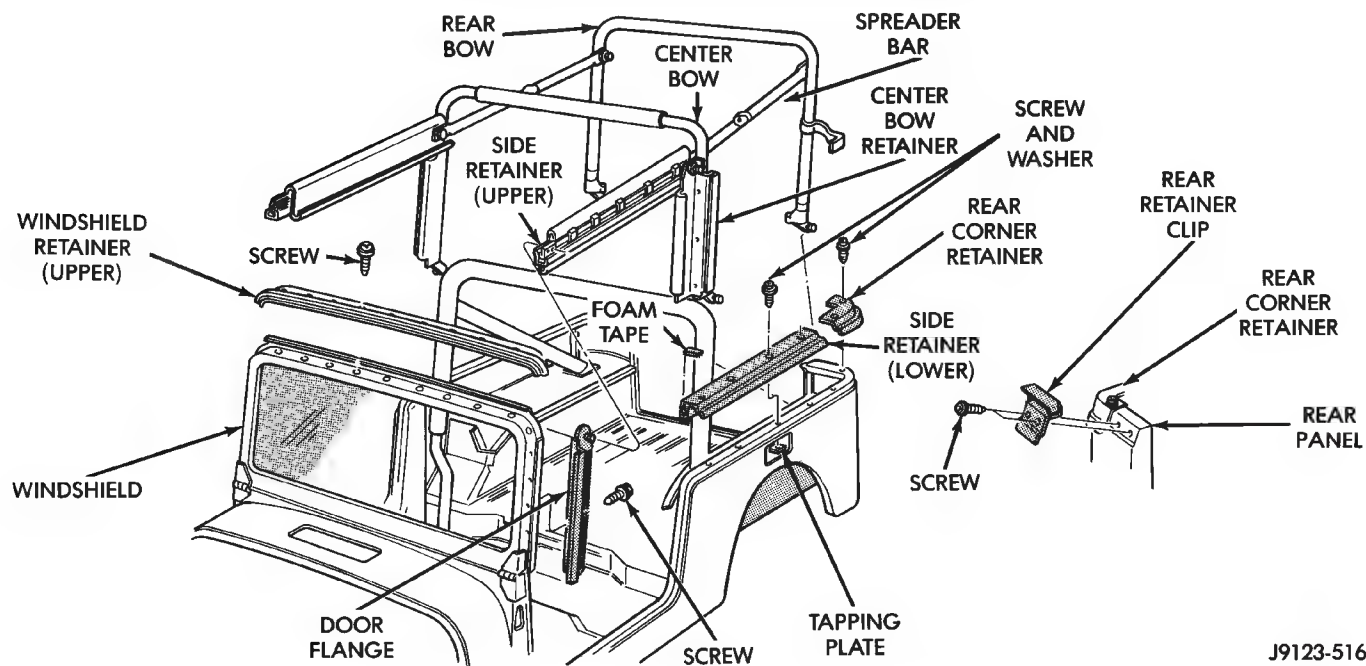
The soft top fabric consists of the top cover and the side and rear curtains (Fig. 4). The top cover is supported by a tubular bow (frame) and is attached to the upper side retainers (above the doors) with snap-on retainers (Fig. 5).





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**Fig. 4 Soft Top Cover, Curtains and Windows**



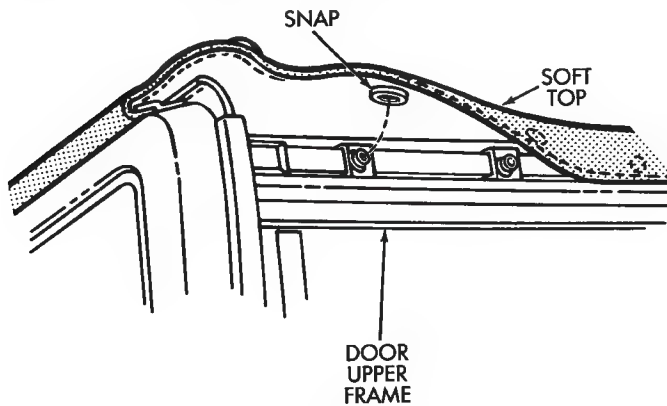
J9123-516

**Fig. 5 Soft Top Bow, Spreader Bar and Retainers**

## SOFT TOP SERVICE—YJ

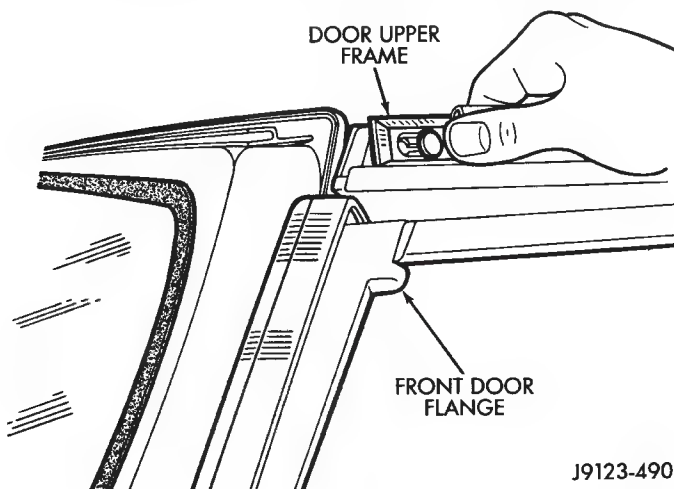
### REMOVAL

(1) Detach the snap-on retainers from the upper side retainers (Fig. 4 and 6).



**Fig. 6 Upper Side Retainers**

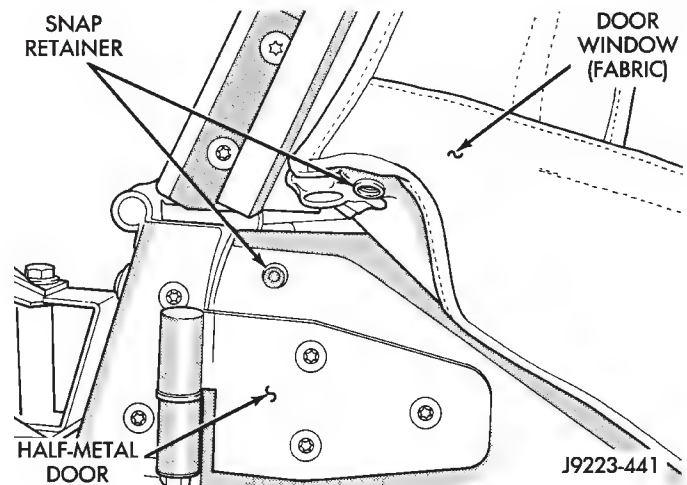
(2) Slide the upper side retainer lock forward. Next, disengage the lock from the pin and remove the retainer from the door flange (Fig. 4, 5 and 7).



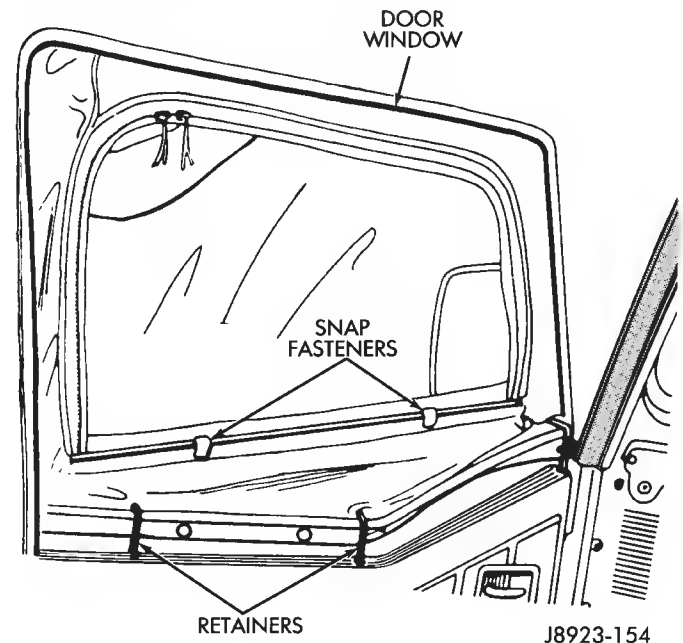
**Fig. 7 Upper Side Retainer Removal From Door Flange**

(3) Detach the snap-on retainer at the front corner (Fig. 8), turn the retainers and remove the door windows (Fig. 9).

- (4) Open the side curtain upper and rear zippers.
- (5) Detach the interior snap-on retainer and tab, and pull the bottom edge of each side curtain out of the lower side retainer channel.
- (6) Slide the front edge of the side curtain downward and remove it from the center bow retainer channel.
- (7) Pull downward on the spreader bar to release the lock and the tension on the center and rear bows (Fig. 10).
- (8) Open the tailgate.

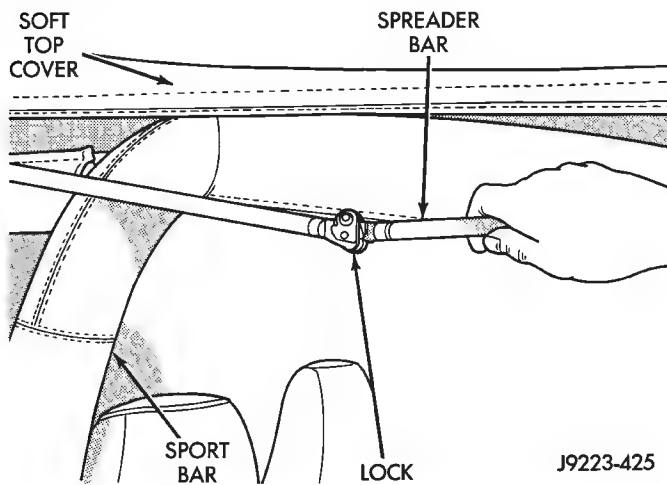


**Fig. 8 Door Window Snap-On Retainer**

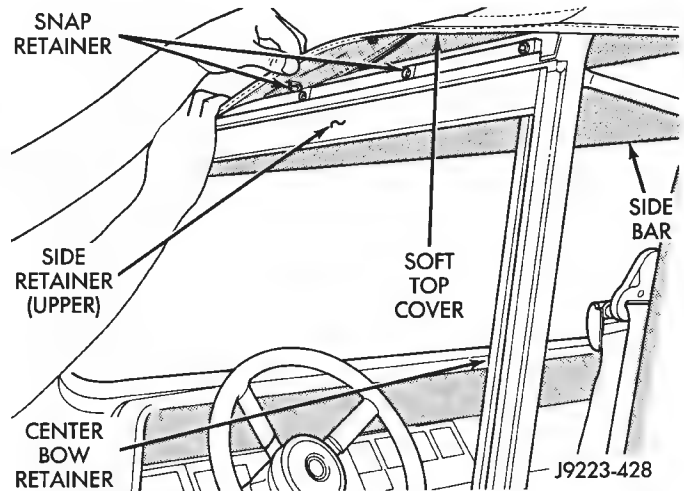


**Fig. 9 Door Window Removal/Installation**

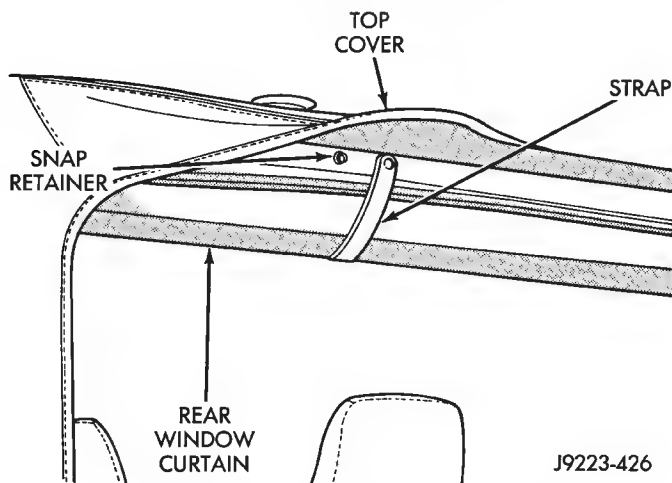
- (9) Open the rear curtain upper and side zippers.
- (10) Roll up the rear curtain and attach it to the top cover with the elastic straps and snap-on retainers (Fig. 11).
- (11) Pull the bottom edge of the rear corners outward and detach from the side (lower) retainer (Fig. 12).
- (12) Detach the top cover from the upper side retainers located above the doors (Fig. 13). Next, detach the top cover from the retainer channel located along the upper edge of the windshield frame.
- (13) Pull the top cover rearward from the windshield frame and fold it above the center bow (Fig. 14).
- (14) Slide the top cover rearward (Fig. 15). The rear bow legs should move forward and fold under the center bow legs and the upper side retainers.



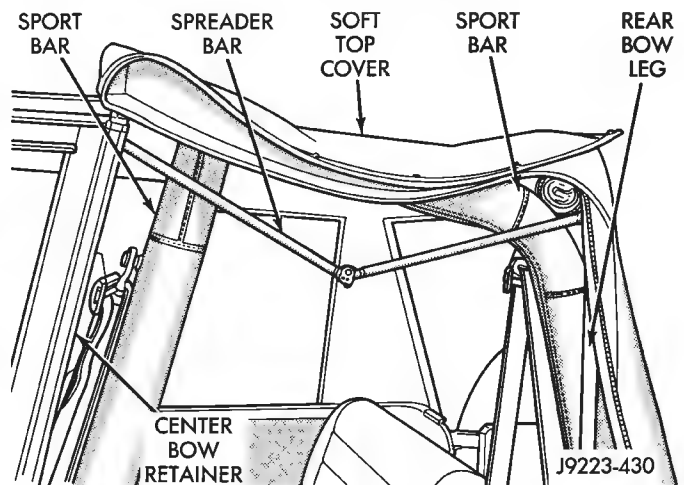
**Fig. 10 Releasing Spreader Bar Tension**



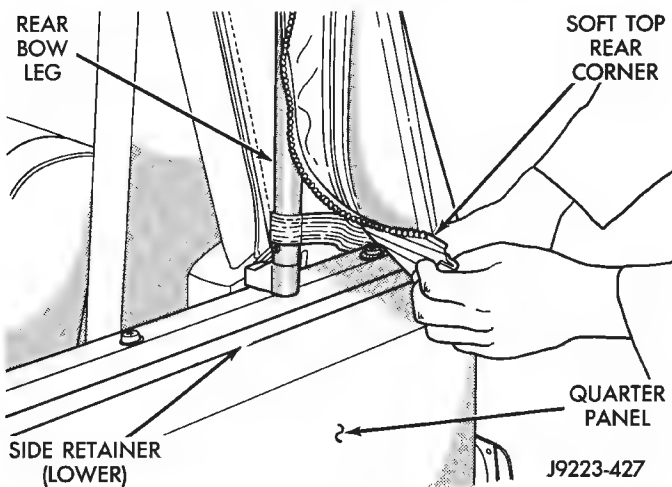
**Fig. 13 Top Cover Snap-On Retainers At Upper Side Retainers**



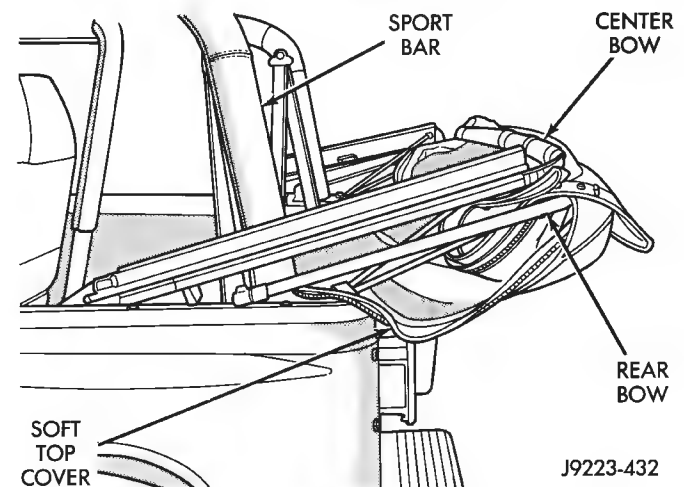
**Fig. 11 Rear Curtain Stowed**



**Fig. 14 Folding Top Cover**



**Fig. 12 Detaching Rear Corner Side (Lower) Retainer**



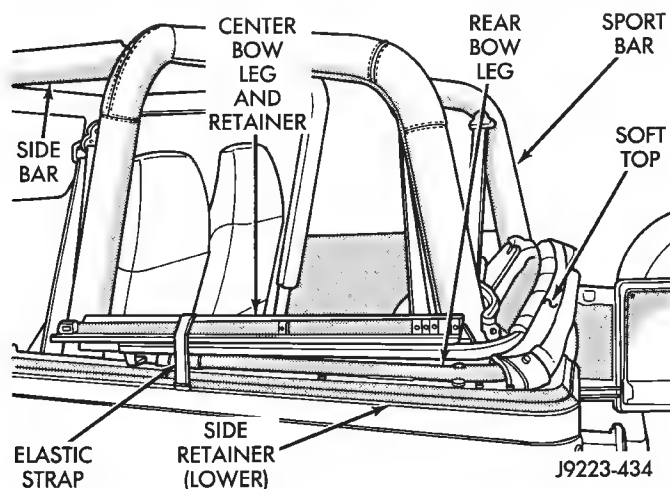
**Fig. 15 Sliding Top Cover Rearward**

(15) Slide the center bow legs out of the lower side retainers and remove the top cover from the vehicle.



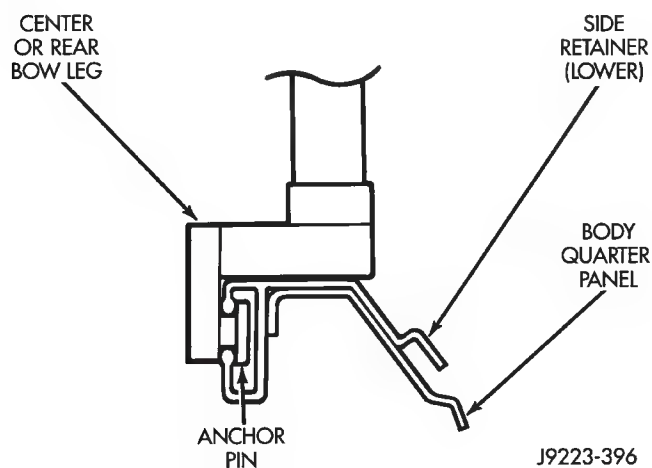
## INSTALLATION

(1) If stowed at the rear of the vehicle, detach the elastic straps that retain the top cover (Fig. 16).



**Fig. 16 Stowed Top Cover**

(2) If not stowed, position the center bow legs anchor pins in the lower side retainer receptacles (Fig. 17).



**Fig. 17 Bow Leg and Anchor Pin**

(3) Grasp the cover at the upper side snap retainers and pull the top cover upward and forward.

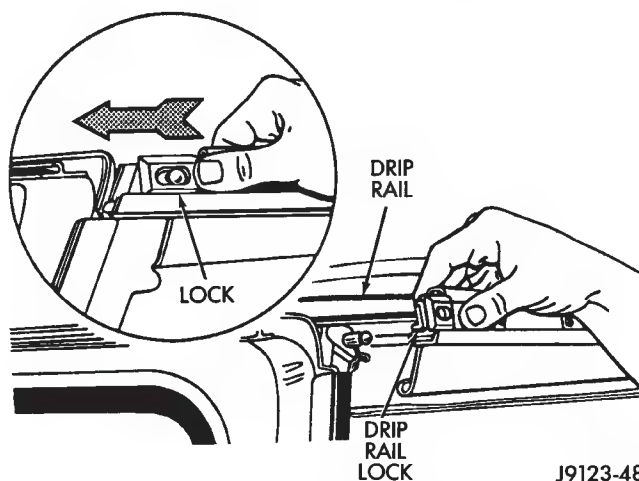
(4) Position front of the upper side snap retainers at the door flanges and lock pin at each side of the vehicle (Fig. 18). Engage the locks with the pins and then slide the locks rearward.

(5) Insert the front edge of the top cover into the retainer channel on the windshield frame (Fig. 19).

(6) Ensure that the center bow leg is positioned all the way forward in the receptacle.

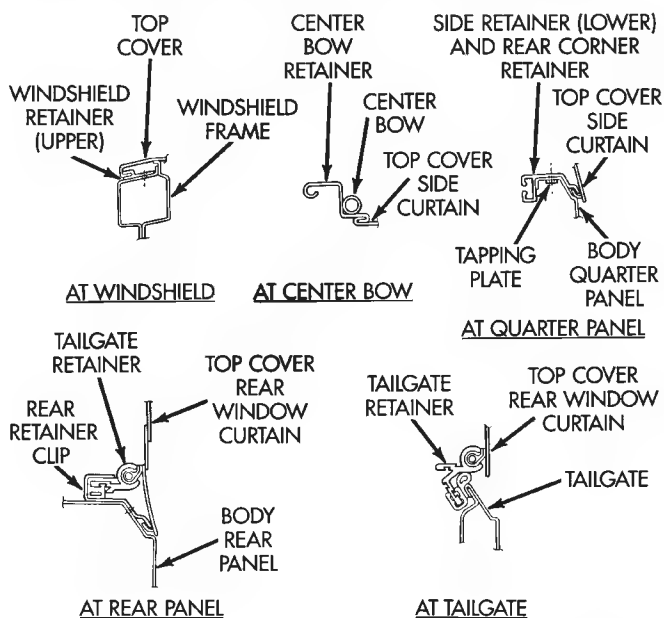
(7) Ensure that the rear corners of the top cover are inserted in the retainer channels (Fig. 19).

(8) Pull the rear bow legs rearward until they engage with the notch in the lower side retainers. Ensure that the side curtain rear zippers are not entrapped or folded behind the rear bow.



J9123-487

**Fig. 18 Upper Side Retainer Lock Engagement**



J9223-395

**Fig. 19 Soft Top Installation**

(9) Force the spreader bars (Fig. 20) upward until the lock engages.

(10) Slide the front edge of each side curtain upward into the retainer channel on the center bow.

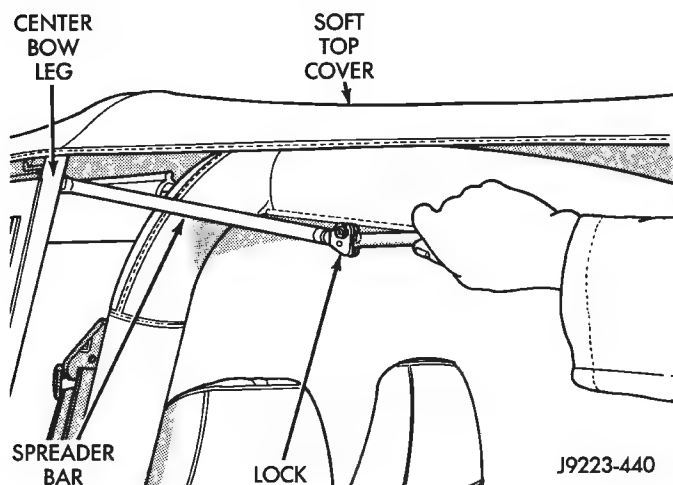
(11) Close top zipper on each side curtain 5 - 8 cm (2 - 3 in). Next, close the rear zipper at the bottom corner of the curtain 5 - 8 cm (2 - 3 in).

(12) Attach the side curtain front and rear tab snap-on retainers to the lower side retainer.

(13) Completely close both side curtain zippers.

(14) Pull downward firmly on the side curtains. Start at one end and move toward the opposite end. The bottom edge of the curtains must be completely inserted in the lower side retainer channels.

(15) Release the rear window curtain straps and insert the bottom edge into the tailgate retainer



**Fig. 20 Engaging Spreader Bar Lock**

channel. Close the rear window curtain zippers and attach the side snap-on retainers.

(16) Attach all the top cover snap-on retainers to the upper side retainers located above both doors. As necessary, slide the mating half of the snap-on retainers so that they will align with the snap-on retainers on the top cover. Tuck the edge of the top cover inside the side retainer.

(17) Install the door windows by inserting the retainers into the door grommets. Attach the snap-on retainers located along the bottom edge of the window to the door retainer.

## SPORT BAR—YJ

### REMOVAL

(1) Disconnect sound bar. Refer to Group 8F, Audio Systems for removal and installation procedures.

(2) Remove the screws that attach the sport bar base plates to the floor and wheelhouse panels (Fig. 1).

(3) Remove the retaining screws and bolts, and remove the side bars from the windshield frame and the sport bar (Fig. 1 and 2).

(4) Carefully lift the sport bar upward and remove it from the vehicle.

(5) If necessary, remove the pads and covers from the sport bar.

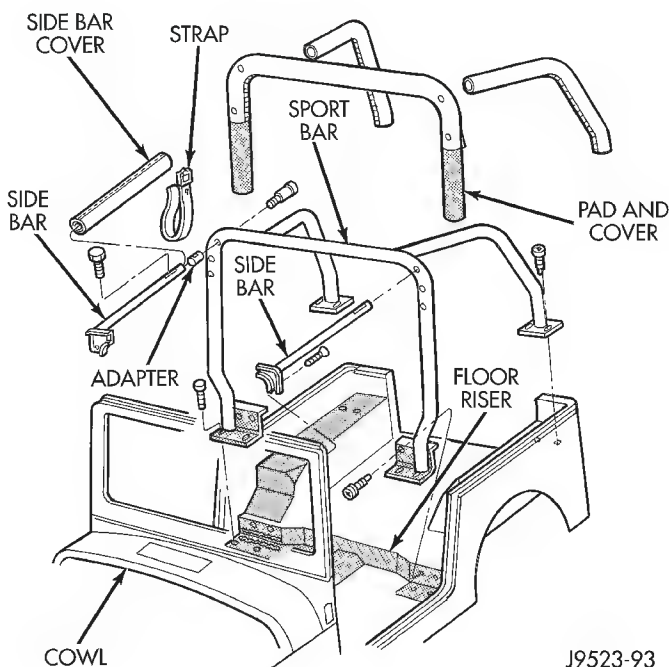
### INSTALLATION

(1) Clean the base plate contact surface areas on the floor and wheelhouse panels.

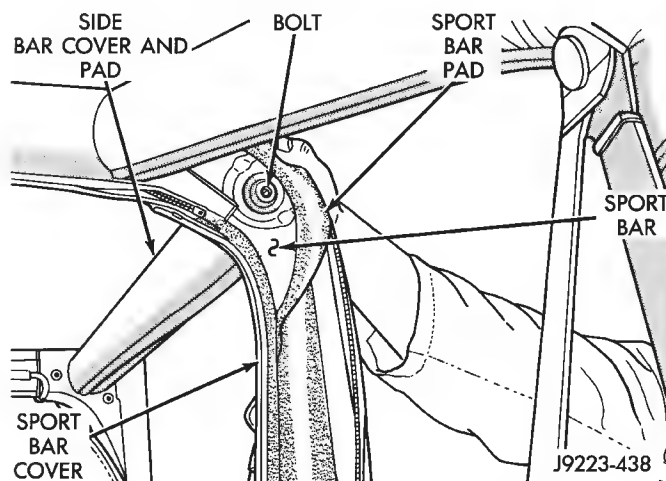
(2) Apply epoxy chromate primer to the attaching screw hole edges for protection against corrosion.

(3) Position the sport bar base plates on the floor and wheelhouse panels with the screw holes aligned.

**To prevent water seepage, apply 3M Drip-Chek Sealant (or an equivalent product) to the underside of all the screw heads before installation.**



**Fig. 1 Sport Bar**



**Fig. 2 Sport Bar-To-Side Bar Bolt**

(4) Apply sealant to the underside of each base plate attaching screw head. Install and tighten the screws to 42 N·m (31 ft. lbs.) torque.

(5) Position the side bars at the windshield frame. Tighten the screws to 32 N·m (24 ft. lbs.) torque, and at the sport bar. Install screws and bolts in the windshield frame and the sport bar. Tighten the screws to 32 N·m (53 ft. lbs.) torque.

(6) Position the side bars at the sport bar. Install the bolts in the sport bar. Tighten the screws to 71 N·m (53 ft. lbs.) torque.

(7) Install sound bar.

## EXTERNAL SPARE/WHEEL TIRE CARRIER—YJ

### REMOVAL

(1) Remove the spare tire and wheel from the wheel bracket (Fig. 3).

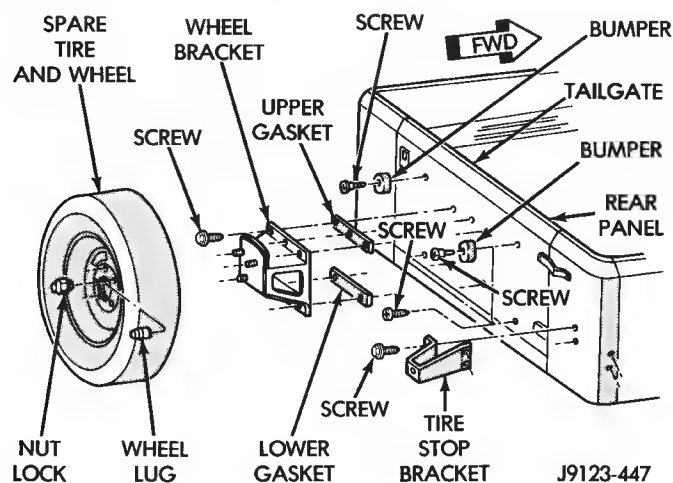


Fig. 3 External Spare Tire/Wheel Carrier

(2) Remove the screws that attach the wheel bracket to the tailgate.

(3) Disconnect CHMSL (Fig. 4).

(3) Remove the bracket and the gaskets from the tailgate.

(4) Remove the screws that attach the stop bracket to the rear panel and the bumpers to the tailgate.

(5) Remove the stop bracket and the bumpers from the vehicle.

(6) Clean the contact surface areas on the tailgate and the rear panel.

### INSTALLATION

(1) Position the stop bracket and the bumpers on the vehicle, and install screws. Tighten the screws to 11 N·m (95 in-lbs) torque.

(2) Position the gaskets and the wheel bracket on the tailgate and install the attaching screws. Tighten the screws to 23 N·m (204 in-lbs) torque.

(3) Connect CHMSL connector.

(4) Install the spare tire and wheel on the wheel bracket. Tighten the wheel lug nuts and the nut lock to 68 N·m (50 ft-lbs) torque.

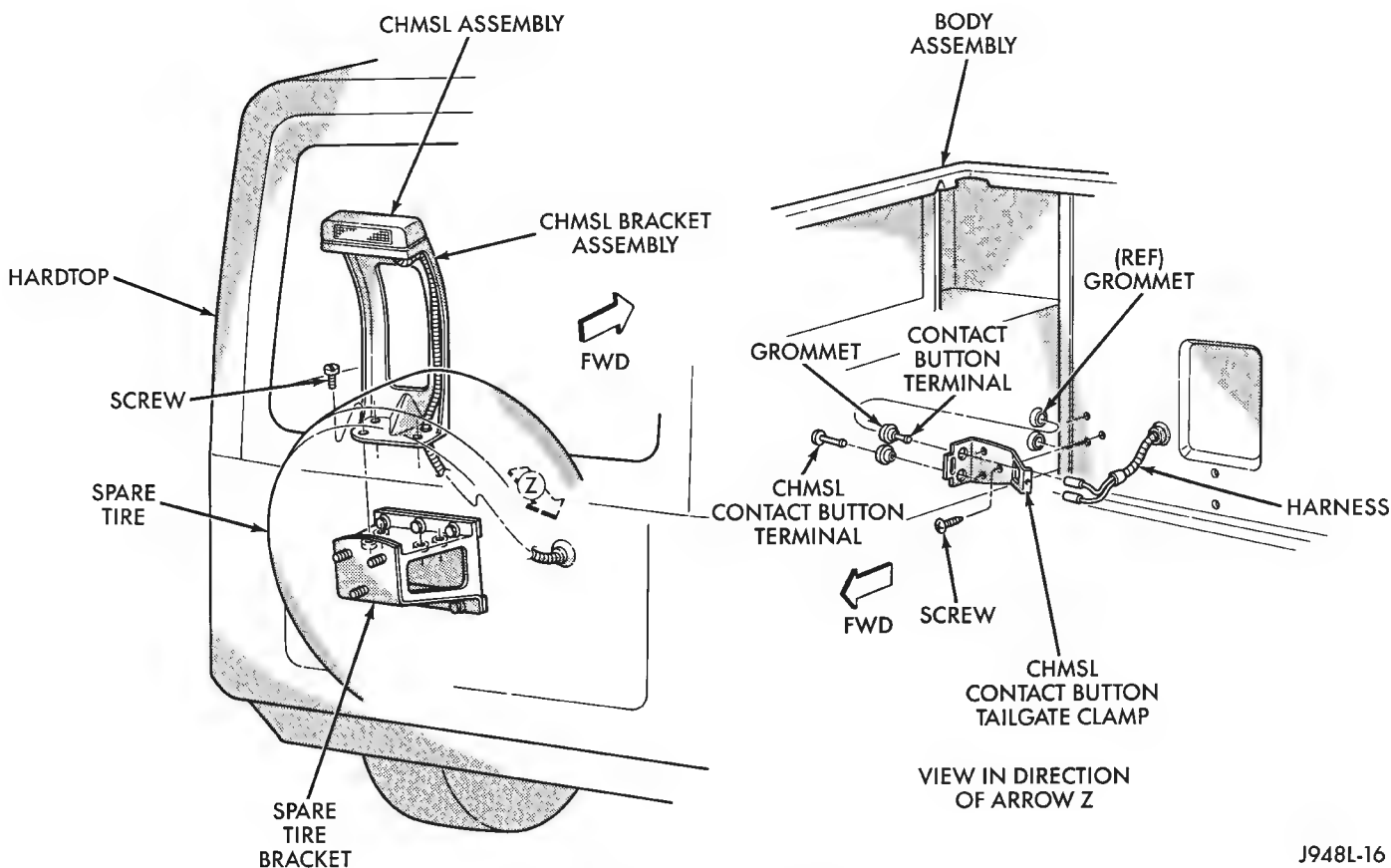


Fig. 4 CHMSL Removal



## DOORS

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## HALF-METAL SOFT TOP DOOR—YJ

## REMOVAL/DISASSEMBLY

- (1) Open the door.
- (2) Disconnect the door restraint strap from the pin (Fig. 1).

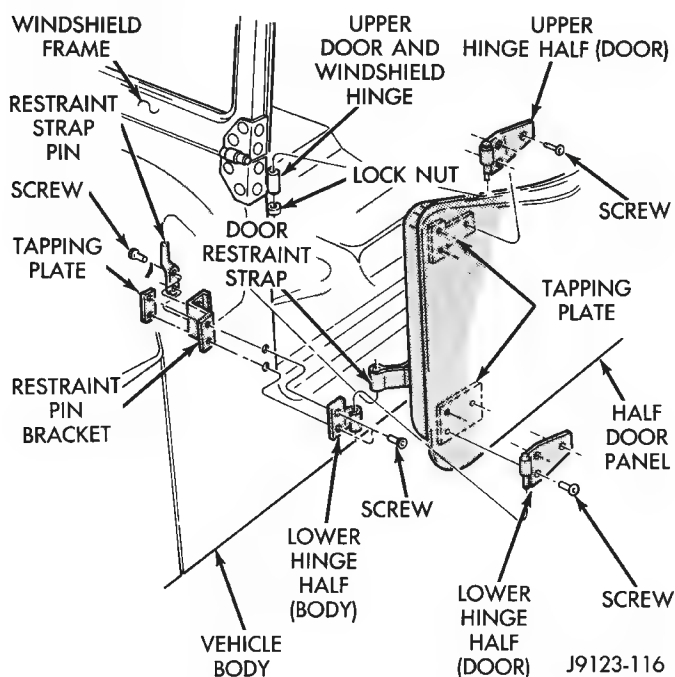
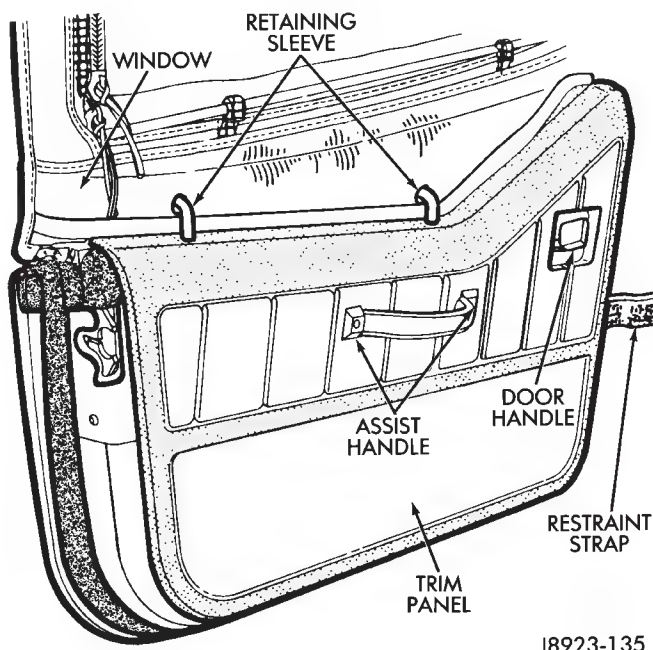


Fig. 1 Half-Metal Soft Top Door

- (3) Turn the window retaining sleeves 1/4 turn to the left and pull them up and out of the door (Fig. 2).
- (4) Remove the window from the door by detaching the soft top-to-door snap fasteners and pulling the window up and out of the door (Fig. 3).
- (5) Remove the latch interior release handle (Fig. 4).
- (6) Remove the assist handle.
- (7) Remove the trim panel by detaching the retainers around the perimeter of the trim panel (Fig. 4).



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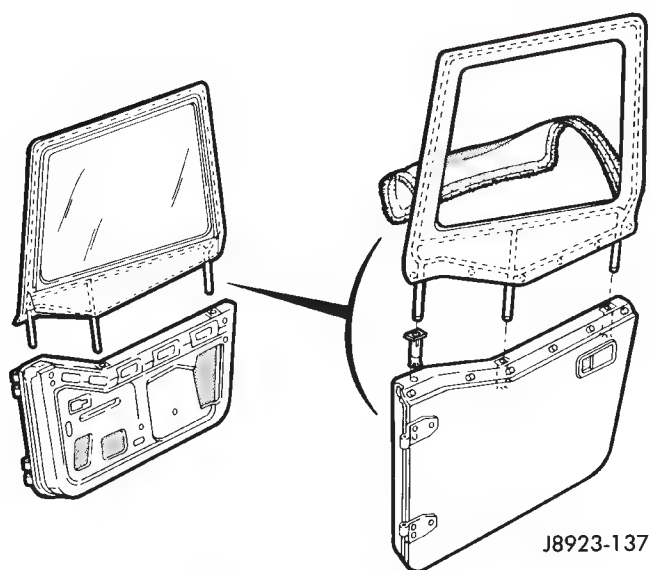
Fig. 2 Window Retaining Sleeves

- (8) Remove the screws from the door latch handle, disconnect the latch release rod and remove the handle (Fig. 4).
- (9) Remove the door latch screws (Fig. 4). Remove the door latch with the rods attached.
- (10) Remove the weatherstrip seal screws and carefully remove the weatherstrip seal from door edge (Fig. 5).
- (11) Remove the retaining nuts from the door hinge pivots and remove the door from the body (Fig. 1).
- (12) Remove the retaining screws and the hinges from the door.

## ASSEMBLY/INSTALLATION

- (1) Install the hinges and the retaining screws on the door. Tighten the screws securely.





**Fig. 3 Window Removal/Installation**

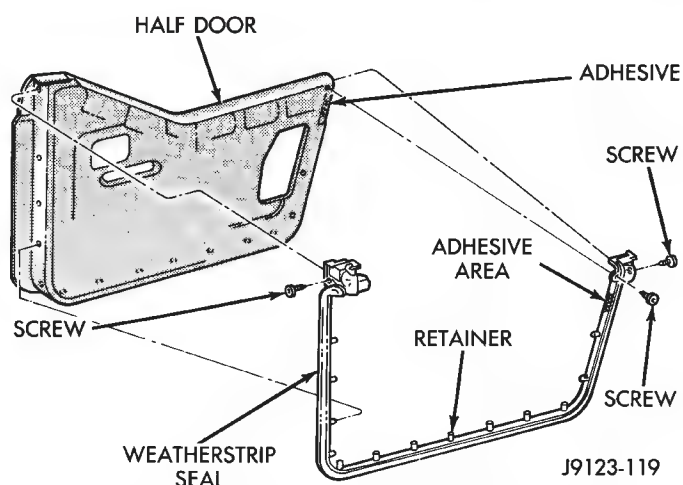
(2) Position the door at the vehicle, insert the hinge pivots in the hinge receptacles and install the retaining nuts (Fig. 1). Tighten the nuts securely.

(3) Install the weatherstrip seal on the door edge and install the seal retaining screws (Fig. 5).

(4) Position the latch in the door and install the retaining screws (Fig. 4). Tighten the screws securely.

(5) Position the door latch external release handle and install the retaining screws (Fig. 4). Tighten the screws securely. Connect the latch release rod to the external release handle and the key lock-to-latch rod (Fig. 6).

(6) Install the interior trim panel (Fig. 4).



**Fig. 5 Half-Metal Door Weatherstrip Seal**

(7) Connect the latch release rod to the door latch interior release handle and install the handle (Fig. 4).

(8) Install the assist handle.

(9) Install the window retaining sleeves.

(10) Install the window (Fig. 3).

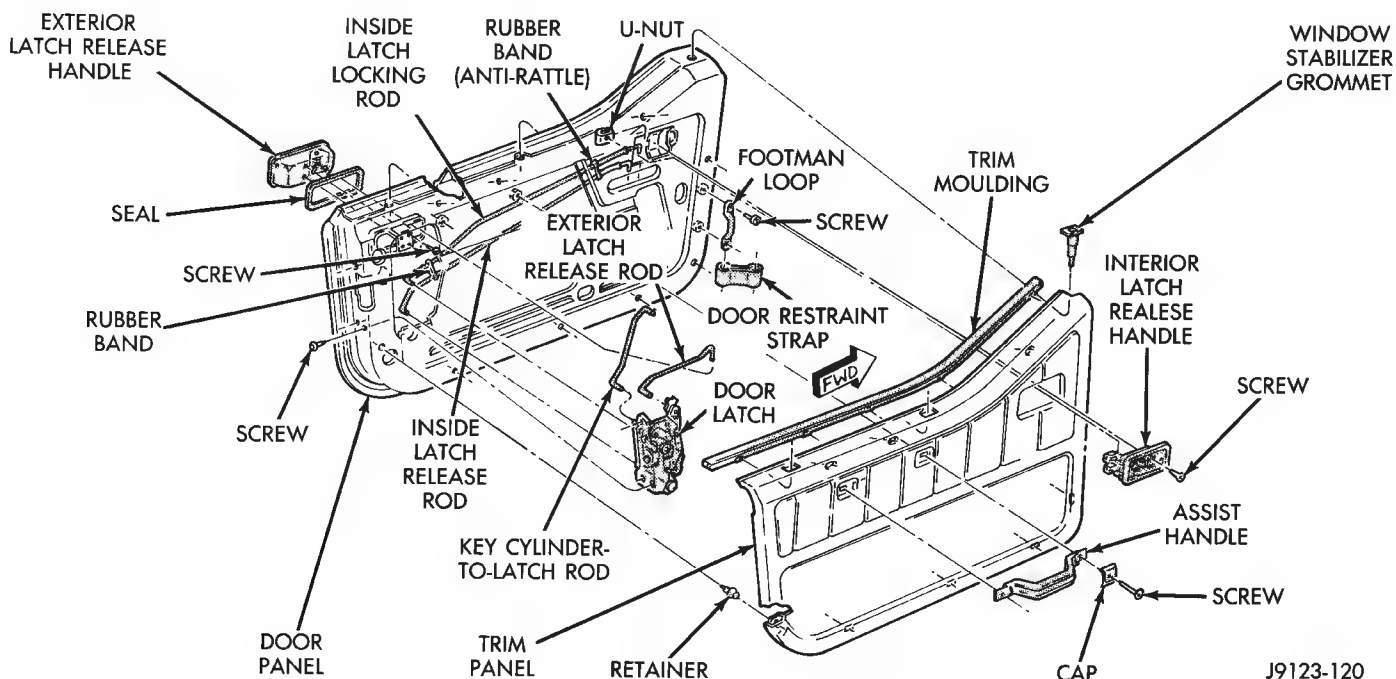
(11) Attach the restraint strap to the pin (Fig. 1).

## HALF-METAL DOOR LATCH STRIKER—YJ

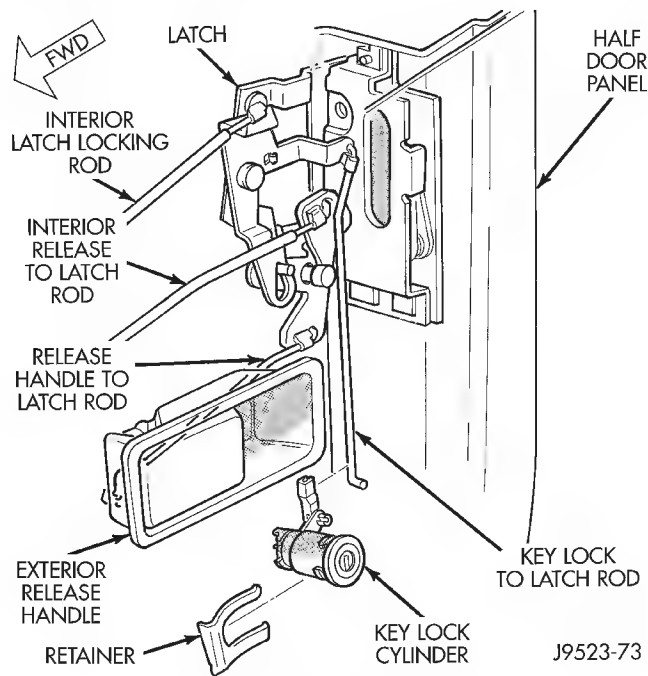
### REPLACEMENT

(1) Remove the striker with a Torx bit (Fig. 7).

(2) Install the plate, shim and replacement striker with a Torx bit (Fig. 7).



**Fig. 4 Half-Metal Door Interior Trim Panel**



**Fig. 6 Half-Metal Door Latch**

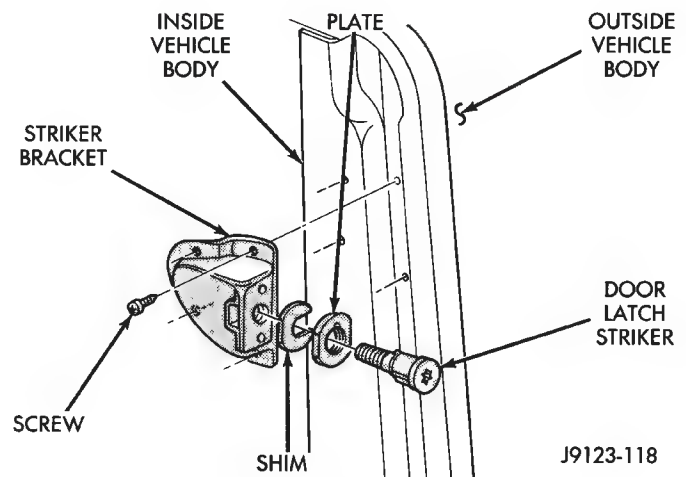
## FULL-METAL DOOR WINDOW GLASS REGULATOR HANDLE—YJ

### REMOVAL/INSTALLATION

The window glass regulator handle is attached to the splined regulator shaft with an internal hex-head screw (Fig. 8).

(1) To remove the handle:

- Remove the cover.
- Remove the screw.



**Fig. 7 Half-Metal Door Latch Striker**

- Pull the handle straight out and off the shaft (Fig. 8).
- (2) Install the handle with the knob positioned forward, the handle horizontal and the window glass closed.

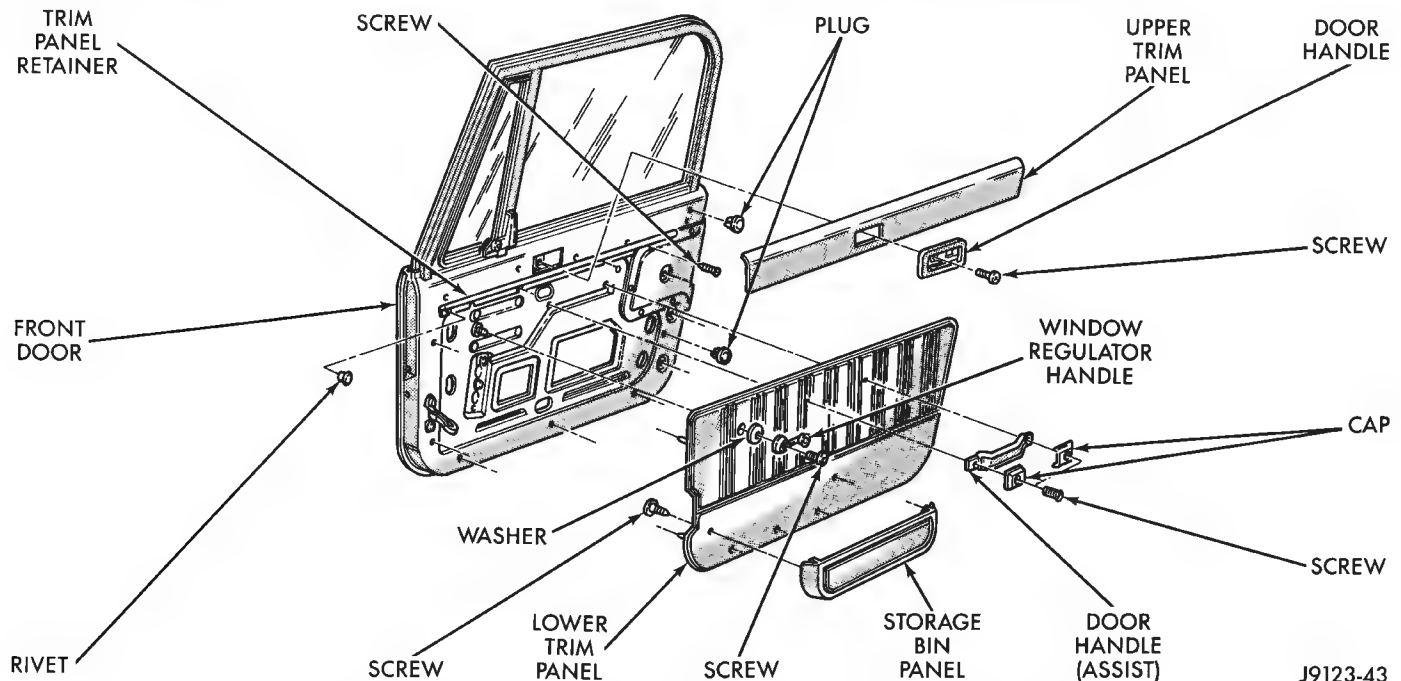
## FULL-METAL DOOR ASSIST HANDLE—YJ

### REMOVAL

- (1) Remove the screws that attach the door assist handle to the trim panel (Fig. 8).
- (2) Remove the handle from the door.

### INSTALLATION

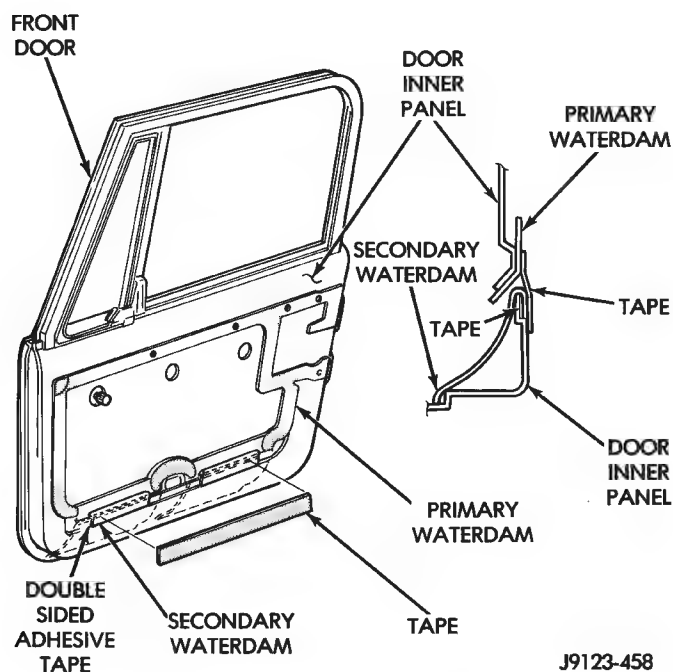
- (1) Position the handle on the door.
- (2) Install the attaching screws.



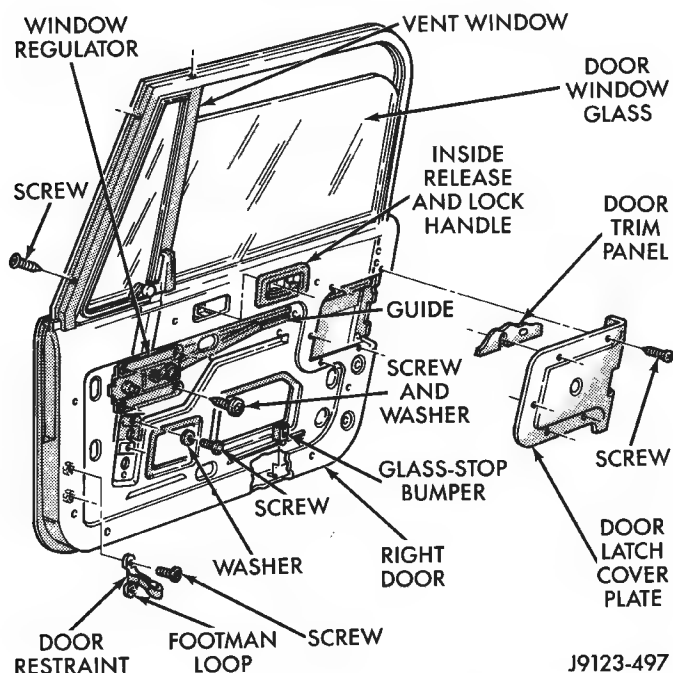
**Fig. 8 Full Metal Door Trim Panels and External Components**







J9123-458

**Fig. 10 Door Waterdam**

J9123-497

**Fig. 11 Door Internal Components**

(4) Detach the front three inches of weatherstrip seal from the door upper frame. Lower the division channel and tilt it toward the rear of the door.

(5) Remove the vent window glass from the door frame.

**INSTALLATION**

(1) Position the vent window glass in the door frame.

(2) Install the division channel in the door and position the channel on the window glass.

(3) Install the upper attaching screw and the lower adjustment screw.

(4) Attach the weatherstrip seal to the door upper frame.

(5) Water test the window and inspect for leaks.

(6) If water leakage is evident, apply windshield sealant to seal the area or re-align the weatherstrip seal.

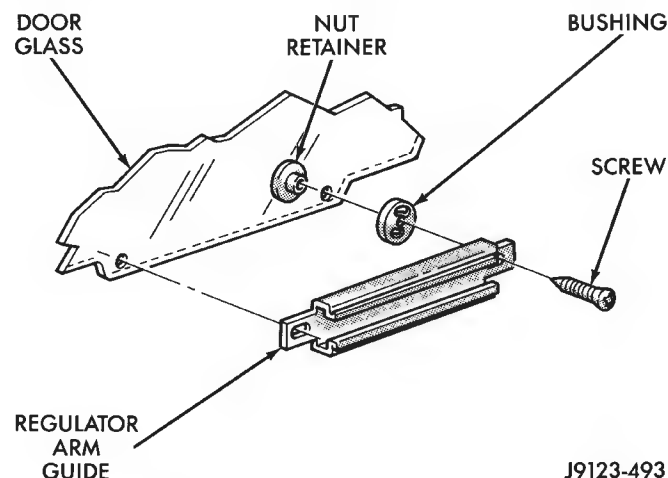
(7) Test the operation and adjustment of the door window glass.

(8) Install the door waterdam and the trim panel (Fig. 8 and 10).

**FULL-METAL DOOR WINDOW GLASS REGULATOR—YJ****REMOVAL**

(1) Remove the door trim panel and the waterdam (Fig. 8 and 10).

(2) Lower the door window glass to expose the regulator arm guide retainer screws (Fig. 11 and 12). Remove the bushings, the nuts and the guide channel (Fig. 12).



J9123-493

**Fig. 12 Regulator Arm Guide**

(3) Lift the window glass to the fully closed position and apply masking tape to the window glass and over the top of the window frame to retain it.

(4) Remove the division channel lower adjustment screw.

(5) Remove the window glass regulator attaching screws (Fig. 11).

(6) Push the division channel outward and remove the window glass regulator through the access hole in the door inner panel.

**INSTALLATION**

(1) Position the window glass regulator within the door panels and install the screws. Tighten screws to 10 N·m (96 in. lbs.) torque.

(2) Remove the masking tape from the window glass and lower it.



(3) Slide the regulator arm guide onto the regulator arm and position the guide on the window glass (Fig. 12). Install the nuts, bushings and screws.

(4) Install the division channel lower adjustment screw.

(5) Test the window glass for proper operation.

(6) Install the door waterdam and the trim panel (Fig. 8 and 10).

## FULL-METAL DOOR WINDOW GLASS—YJ

### ADJUSTMENT

One adjustment location provides amount of effort required to raise and lower the door window glass. The door window glass division channel is adjustable fore and aft at the lower attaching location.

(1) Remove the door trim panel and the waterdam (Fig. 8 and 10).

(2) Loosen channel lower adjustment screw and move the division channel fore or aft to obtain the desired door window glass operation.

**Movement of the division channel fore or aft will decrease or increase the free-play between the channels.**

(3) Tighten the division channel lower adjustment screw.

(4) Install the door waterdam and the trim panel (Fig. 8 and 10).

### REMOVAL

(1) Remove the door trim panel and the waterdam (Fig. 8 and 10).

(2) Remove the window glass down-stop bumper (Fig. 11).

(3) Remove the screws that attach the regulator arm guide to the window glass. Remove the screws, bushings, nuts and the guide from the glass (Fig. 11).

(4) Lower the window glass to the bottom of the door.

(5) Remove the division channel upper attaching screw and the lower adjustment screw. Detach the front 3 inches of window glass weatherstrip seal from the door upper frame.

(6) Separate the division channel from the front window glass rubber seal. Pull the division channel up and in toward the inside of vehicle.

(7) Raise and tilt the window glass toward the hinge side of the door and disengage it from the rear channel.

(8) Pull the window glass up and out of the door panel.

### INSTALLATION

(1) Lower the window glass into the door, while inserting the window glass into the front and rear channels.

(2) Slide the window glass downward to the bottom of the door panel.

(3) Lower the division channel into the door and position the window glass securely in the channel.

(4) Install the weatherstrip seal in the upper door frame and install the upper attaching screw and the lower adjustment screw.

(5) Slide the guide onto the regulator arm and position the guide on the window glass. Install the retaining nuts, bushings and screws (Fig. 12).

(6) Install the window glass down-stop bumper (Fig. 11).

(7) Test the window operation for proper adjustment.

(8) Install the door waterdam and the trim panel (Fig. 8 and 10).

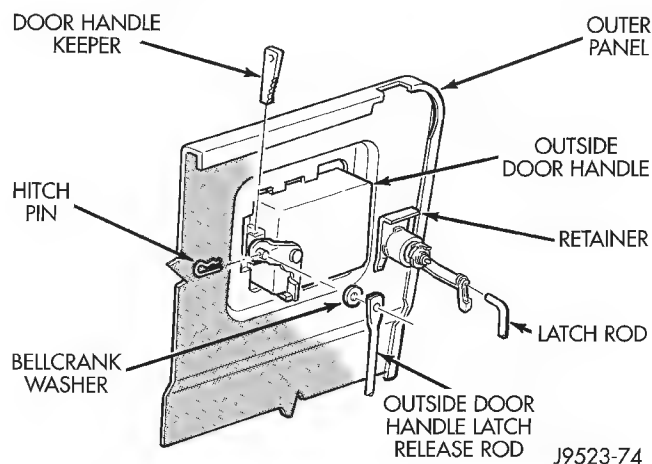
## FULL-METAL DOOR KEY LOCK CYLINDER—YJ

### REMOVAL

(1) Remove the door trim panel and the waterdam (Fig. 8 and 10).

(2) Remove the door latch cover screws and remove the cover (Fig. 11).

(3) Remove the retaining dip and remove lock cylinder-to-latch rod (Fig. 13).



**Fig. 13 Key Lock Cylinder and Door Handle**

(4) Remove the lock cylinder retainer and the lock cylinder from the door panel (Fig. 13 and 14).

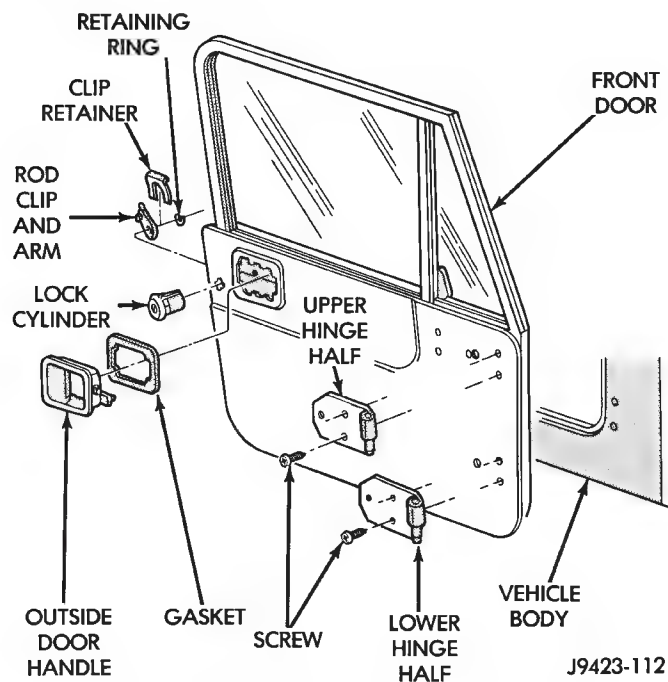
### INSTALLATION

(1) Install the lock cylinder in the door panel (Fig. 14).

(2) Install the lock cylinder retainer, the lock cylinder-to-latch rod and the retaining dip.

(3) Install the door latch cover and the cover screws (Fig. 11).

(4) Install the door waterdam and the trim panel (Fig. 8 and 10).



**Fig. 14 Key Lock Cylinder and Door Handle Removal/Installation**

### FULL-METAL DOOR LATCH EXTERNAL RELEASE HANDLE—YJ

#### REMOVAL

- (1) Remove the door trim panel and the waterdam from the door inner panel (Fig. 8 and 10).
- (2) Remove the door latch cover attaching screws (Fig. 11).
- (3) Remove the hitch pin and the latch release rod from the door external handle (Fig. 13).
- (4) Close the window completely and tap the handle keepers upward (Fig. 13).
- (5) Disconnect the window glass from the regulator arm guide (Fig. 12).
- (6) Remove the division channel upper and lower attaching screws.
- (7) Separate the division channel from the front window glass weatherstrip seal.
- (8) Pull the division channel upward and remove the window glass from the door.
- (9) Remove the keepers from the door handle with needlenose pliers and remove the handle and gasket from the door (Fig. 13 and 14).

#### INSTALLATION

- (1) Install the gasket and the door external handle and slide the keepers into the door handle from the top (Fig. 13 and 14).
- (2) Tap the retainers downward lightly to tighten the handle.
- (3) Install the latch release rod and the hitch pin and attach the rod to the latch (Fig. 13).

(4) Position the window glass in the door and the channels.

(5) Install the division channel and the attaching screws.

(6) Attach the window glass to the regulator arm guide (Fig. 12).

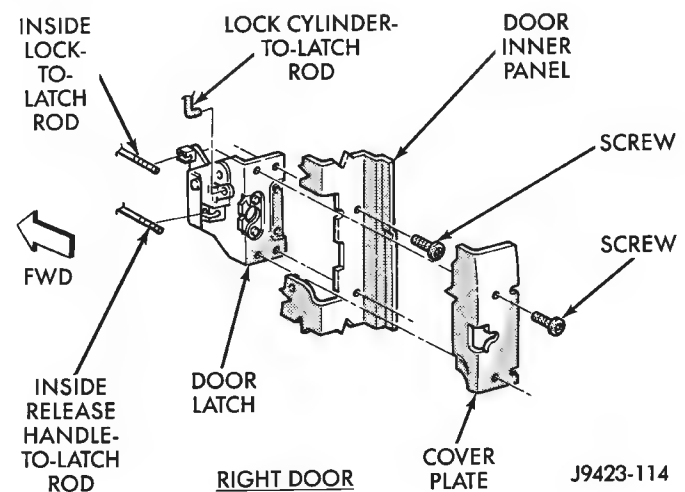
(7) Install the door latch cover (Fig. 11).

(8) Install the door waterdam and the trim panel (Fig. 8 and 10).

### FULL-METAL DOOR LATCH—YJ

#### REMOVAL

- (1) Remove the trim panel and the waterdam from the door inner panel (Fig. 8 and 10).
- (2) Remove the door latch cover (Fig. 11).
- (3) Disconnect the inside release handle-to-latch rod. Disconnect the lock cylinder-to-latch rod. Disconnect the inside lock-to-latch rod. Disconnect the external handle-to-latch rod from the door latch (Fig. 15).



**Fig. 15 Latch Removal/Installation**

- (4) Remove the door latch attaching screws and remove the latch from the door (Fig. 15).

#### INSTALLATION

- (1) Install the door latch with the attaching screws.
- (2) Connect the rods to the latch.
- (3) Install the latch cover with the cover screws.
- (4) Install the door waterdam and the trim panel.

### FULL-METAL DOOR HINGES—YJ

#### ADJUSTMENT

The doors are adjusted at the hinge attaching locations on either the body or the door. Enlarged holes are located in the body (lower hinge only) for fore, aft and tilt adjustments. Enlarged holes are also located in the door (upper and lower hinges) for up, down, fore, aft and tilt adjustments.

Prior to door adjustment or alignment, the door latch must be removed to allow the door to close freely and be properly aligned.

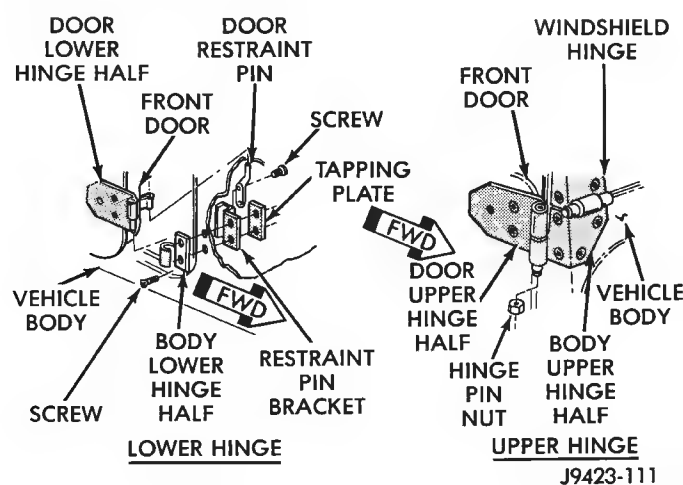
The door latch striker should be adjusted in or out to allow the door latch to be fully engaged. The door should be flush with the adjacent body panels.

## REPLACEMENT

(1) Mark the outline of the existing hinge on the body and the door with a wax pencil for installation alignment reference.

**When removing the door or hinge DO NOT discard the plastic shims or the hinge pin.**

(2) Remove the hinge-to-body screws and the hinge-to-door screws (Fig. 16). Remove the hinge from the door and body.



**Fig. 16 Door Hinges**

The upper hinge is also part of the windshield hinge (Fig. 16). When replacing it, support the windshield frame with an appropriate device prior to removal. Inspect the windshield alignment after hinge installation.

(3) Clean the replacement hinge with an appropriate solvent and dry it with compressed air.

(4) Color-coat the hinge to match the vehicle body with MOPAR exterior spray paint, or an equivalent product.

(5) Lubricate the hinge with spray lubricant.

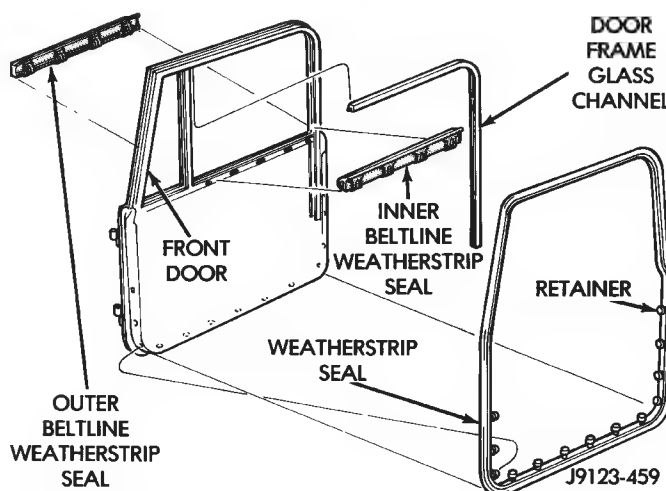
(6) Position the hinge on the door, align carefully with the wax pencil installation alignment reference marks, and install the retaining screws (Fig. 16). Tighten screws to 17 N·m (156 in. lbs.) torque.

(7) Position the hinge on the vehicle body. Align the wax pencil marks installation alignment reference marks. Install the retaining screws (Fig. 16). Tighten screws to 17 N·m (156 in. lbs.) torque.

(8) Inspect the door alignment. Adjust, if necessary. Refer to Door Hinges—Adjustment.

## FULL-METAL DOOR WEATHERSTRIP SEALS—YJ

The door weatherstrip seals are molded latex foam with a smooth rubber reinforcement layer on the outside (Fig. 17).



**Fig. 17 Door Weatherstrip Seals**

Plastic retainers are used to retain the seal on the door panel below the door beltline (Fig. 17). Above the beltline, the seal is retained in a channel formed in the door upper frame.

The beltline weatherstrip seals are retained within the

door panels by spring-dip retainers (Fig. 17).

The door frame glass channel is retained within the door frame by the press-fit between it and the frame.

## WEATHERSTRIP SEAL MAINTENANCE

Cold temperatures can cause rubber seals to harden and lose resiliency. This possibly will cause the door to loosen in the body opening and result in noise. When servicing, use a dampened cloth to clean the rubber seals. Remove the foreign material from all areas where the rubber seal contacts the body panels. Apply silicone lubricant to the seals after they are cleaned.

**CAUTION: Do not apply graphite, brake fluid, or wax to rubber seals.**

Replacement rubber weatherstrip seals are coated with powder to prevent adhesion to the container during storage. Before installation, remove all the powder with a cloth dampened with a general purpose adhesive removal solution.



**DOOR WEATHERSTRIP SEAL REPLACEMENT—YJ****REMOVAL**

(1) Carefully remove the weatherstrip seal from the door with a weatherstrip seal removal tool. Pry the seal outward to separate the plastic retainers from the door panel holes.

(2) Remove the upper portion of the seal from the door upper frame with your fingers or a wooden wand.

(3) Remove the dust and residual adhesive from the door panel and body panel.

**INSTALLATION**

(1) Apply adhesive to the front, rear and bottom edges of the door from the beltline downward.

(2) Install the upper front corner of the seal on the door first using your fingers or a wooden wand to position the seal in the channel. Place the inner shoulder of the seal in the channel-to-window frame above the beltline.

(3) Force the retainers, starting at the rear edge of the door, into the door panel holes.

(4) Ensure that the seal is completely seated around the door.

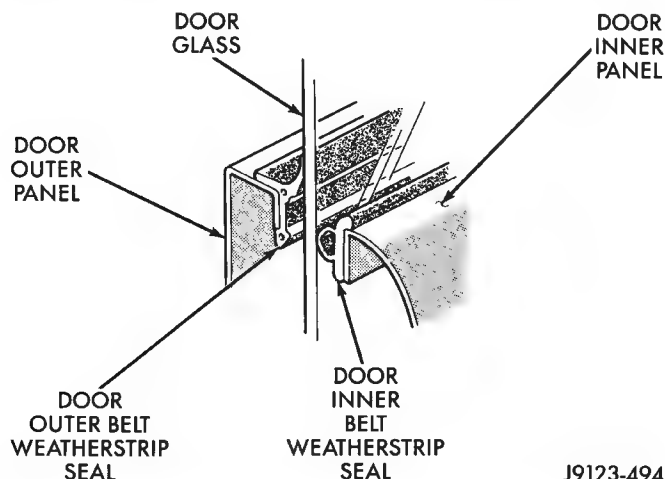
**BELTLINE SEAL—YJ****REMOVAL**

(1) Carefully remove the beltline weatherstrip seal (Fig. 17) from the door with a weatherstrip seal removal tool or similar pry tool.

(2) Pry the seal upward to remove it from within the glass and door panel.

**INSTALLATION**

(1) Position the seal between the door panel and the glass. Force the seal downward with your fingers to seat it against the glass and panel (Fig. 18).



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**Fig. 18 Beltline Weatherstrip Seals**

(2) Ensure that the seal is completely seated within the door (Fig. 18).

**DOOR FRAME GLASS CHANNEL REPLACEMENT—YJ****REMOVAL**

(1) Carefully remove the glass channel (Fig. 17) from the door with a pry tool.

(2) Pry the seal outward to remove it from the frame.

**INSTALLATION**

(1) Position the channel in the frame and force it inward with your fingers to seat it within the frame.

(2) Ensure that the seal is completely seated within the door frame.

**FULL-METAL DOOR SERVICE—YJ****REMOVAL/DISASSEMBLY**

(1) Open the door.

(2) Remove the door restraint strap from the pin.

(3) Remove the door latch inside release handle (Fig. 8).

(4) Remove the assist handle (Fig. 8).

(5) Remove the window glass regulator handle (Fig. 8).

(6) Remove the upper trim panel. Remove the lower trim panel by detaching the retainers around the perimeter of the trim panel (Fig. 8).

(7) Remove the waterdam from the door inner panel (Fig. 10).

(8) Remove the door latch cover plate from the door inner panel (Fig. 11).

(9) Remove the retaining screws and the door latch with the rods attached (Fig. 15).

(10) Remove the beltline weatherstrip seals from the door (Fig. 18).

(11) Remove the window glass from the regulator arm guide (Fig. 12).

(12) Carefully remove the window glass from the channel and the door.

(13) Remove the key lock cylinder from the door (Fig. 14).

(14) Remove the door outside handle keepers, disconnect the latch release rod and remove the handle from the door panel (Fig. 13).

(15) Carefully remove the weatherstrip seal from door edge (Fig. 18).

(16) Remove the retaining nuts from the door hinge pins and remove the door from the body (Fig. 16).

(17) Remove the retaining screws and the hinges from the door panel (Fig. 14).

**ASSEMBLY/INSTALLATION**

(1) Install the hinges on the door (Fig. 14).

(2) Position the door at the body opening, insert the hinge pins in the hinge receptacles and install the retaining nuts (Fig. 16). Tighten the nuts securely.

(3) Install the weatherstrip seal on the door edge (Fig. 18).

(4) Install the door outside handle and the keepers. Connect the latch release rod to the handle (Fig. 13).

(5) Install the key lock cylinder (Fig. 14).

(6) Position the window glass in the channel and the door.

(7) Attach the window glass to the regulator arm guide (Fig. 12).

(8) Install the beltline weatherstrip seals in the door (Fig. 18).

(9) Position the latch in the door and install the retaining screws (Fig. 15). Tighten the screws securely.

(10) Connect the latch rods (Fig. 19). Attach the inside release handle securely. Attach the rods to the latch making sure the lock position of the lock position of the latch toggle button are the same (Fig. 20).

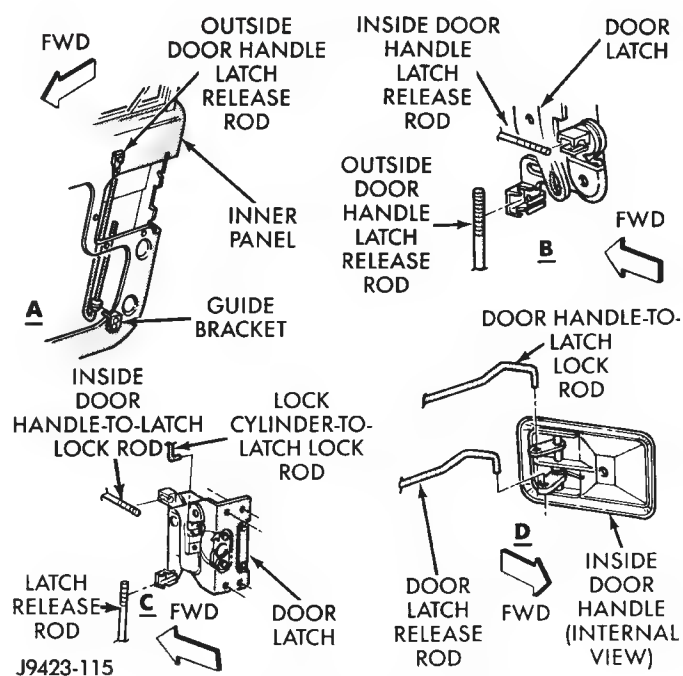
**The ends of the latch rods are threaded and the overall length of each rod is adjustable within the retainer clip. Adjust as necessary.**

(11) Install the door latch cover plate on the door inner panel (Fig. 11).

(12) Install the waterdam on the door inner panel (Fig. 10).

(13) Install the interior trim panels (Fig. 8).

(14) Install the window regulator handle.

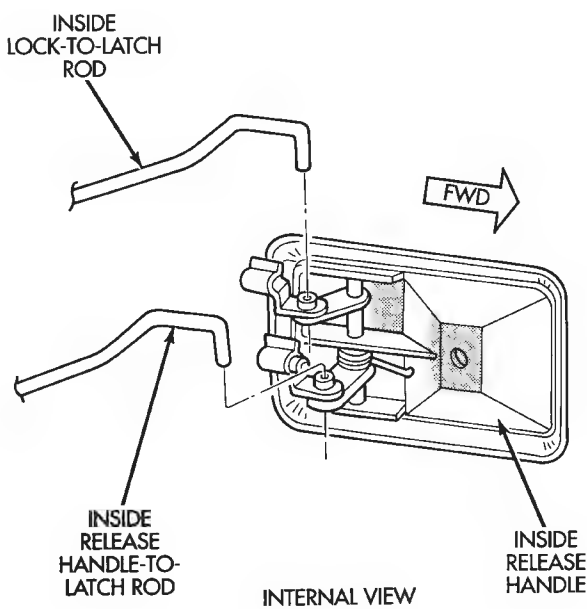
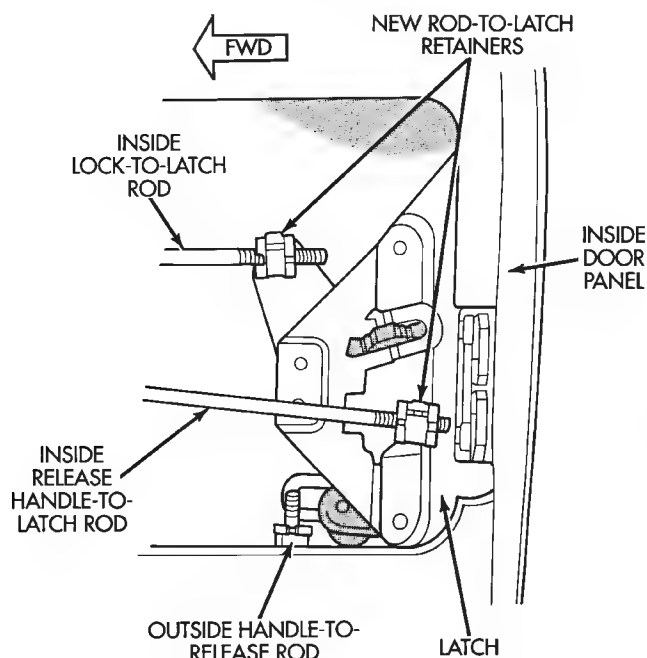


**Fig. 19 Latch Rod Connections**

(15) Connect the handle-to-latch rod and the lock-to-latch rod to the door latch inside release handle and install the handle (Figs. 19 and 8).

(16) Install the assist handle.

(17) Attach the restraint strap to the pin.



**Fig. 20 Latch Rod Positions**

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## STATIONARY GLASS

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## WINDSHIELD REVEAL MOLDING—YJ

## REMOVAL

(1) Disengage the reveal molding around the perimeter of the windshield glass with an appropriate tool.

(2) Remove the moldings from the windshield frame.

(3) Inspect the reveal molding retainers. Replace the molding if it has broken, distorted or ineffective retainers.

## INSTALLATION

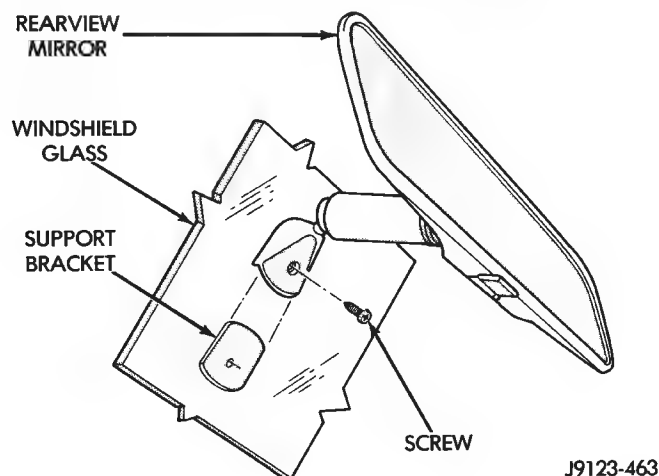
(1) Position the reveal moldings on the windshield frame.

(2) Attach the moldings to the frame by tapping each molding with a rubber mallet to seat the retainers.

## REARVIEW MIRROR—YJ

## REMOVAL/INSTALLATION

(1) Loosen the mirror set screw and slide the mirror up and off the retaining bracket (Fig. 1).



**Fig. 1 Rearview Mirror Removal/Installation**

(2) To install the mirror, slide the mirror onto the retaining bracket and install the set screw.

(3) Tighten the mirror setscrew to 1 N·m (9 in-lbs) torque.

**CAUTION: Do not over-tighten the setscrew because glass chipping and/or breakage could result.**

## REARVIEW MIRROR RETAINING BRACKET—YJ

## REPLACEMENT

(1) Mark reference position lines for the mirror retaining bracket on the **outside** of the windshield glass with a wax pencil. Mark both horizontal and vertical reference lines for accurate bracket positioning.

(2) If the vinyl pad remained on the windshield glass, soften and remove it with a heat gun. Application of low heat will be sufficient to soften the pad.

(3) Thoroughly clean the bracket contact area on the glass. Use a mild abrasive cleaning powder on a cloth saturated with isopropyl (rubbing) alcohol. Final-clean the glass with a paper dampened with alcohol.

(4) Lightly sand the contact surface on the replacement bracket with fine grit sandpaper. Next, wipe the bracket contact surface clean with a paper towel and alcohol.

(5) Apply adhesive accelerator to the contact surface on the mirror bracket according to the following instructions:

- crush the vial in the plastic housing of the accelerator to saturate the felt applicator.
- remove the paper sleeve.
- apply a generous amount of accelerator to the contact surface on the mirror retaining bracket.
- do not touch the retaining bracket contact surface after the accelerator has been applied.
- allow the accelerator to dry for at least five minutes. and

(6) Apply accelerator to bracket contact surface on the windshield glass. Allow the accelerator to dry for one minute. Do not touch the glass contact surface after the accelerator has been applied.

(7) Install the mirror retaining bracket according to the following instructions:



- Apply one drop of adhesive at the center of the retaining bracket contact surface on the windshield glass.
- Immediately apply an even coat of adhesive to the contact surface on the retaining bracket.
- Align the retaining bracket with the position reference lines on the windshield glass.
- Press and hold the retaining bracket in-place for at least one minute.

**Ensure that the mirror retaining bracket is correctly aligned because the adhesive will cure rapidly.**

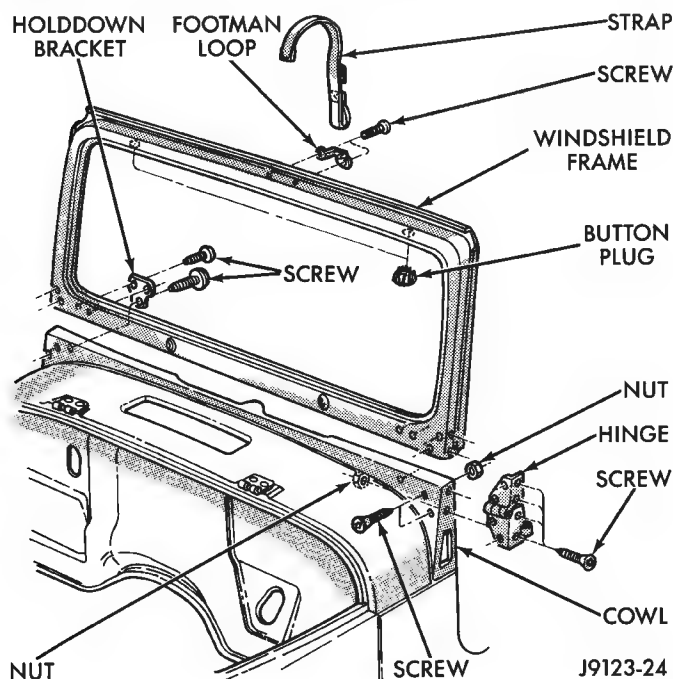
(8) Allow the adhesive to cure for 8-10 minutes, then remove any residue adhesive with an alcohol dampened cloth.

(9) Allow the adhesive to cure for an additional 8-10 minutes before installing the mirror on the retaining bracket (Fig. 1).

## WINDSHIELD FRAME—YJ

### SERVICE INFORMATION

The windshield frame and glass can be removed as a unit for service access (Fig. 2). The windshield frame can also be tilted forward to a full horizontal position and retained in-place with the strap when complete removal is not necessary.



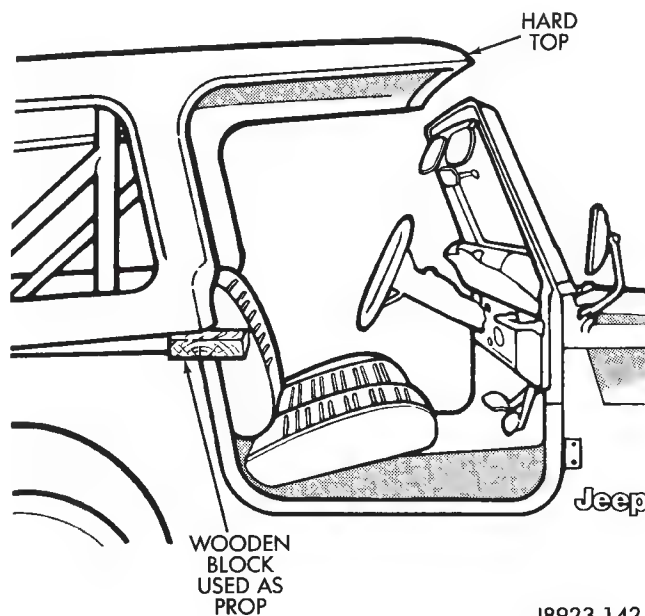
**Fig. 2 Windshield Frame Removal/Installation**

### REMOVAL

(1) Remove the windshield wipers. Refer to the removal procedure.

(2) For vehicles equipped with a soft top, disconnect the fabric top from the windshield frame retainer rail. If necessary, refer to the soft top removal procedure.

(3) For vehicles equipped with a hard top, disconnect the top from the windshield frame. Loosen the retaining screws, tilt the top rearward and support the top away from the windshield frame (Fig. 3).



**Fig. 3 Hard Top Detached From Windshield Frame**

(4) Remove the retaining screws and the windshield/door hinges from the cowl (Fig. 2).

(5) Remove the holddown bracket retaining screws from the cowl (Fig. 2).

(6) Remove the windshield frame and glass from the cowl as a unit (Fig. 2).

(7) If necessary, remove the sunvisors.

### INSTALLATION

(1) Position the windshield frame on the cowl.

(2) Install the holddown bracket retaining screws in the cowl.

(3) Install the windshield/door hinge retaining screws.

(4) Connect the top to the windshield frame. If necessary, refer to the applicable top installation procedure.

(5) For vehicles equipped with a soft top, connect the fabric top to the windshield frame retainer rail. If necessary, refer to the soft top installation procedure.

(6) For vehicles equipped with a hard top, remove the supports, tighten the retaining screws, and connect the top to the windshield frame.

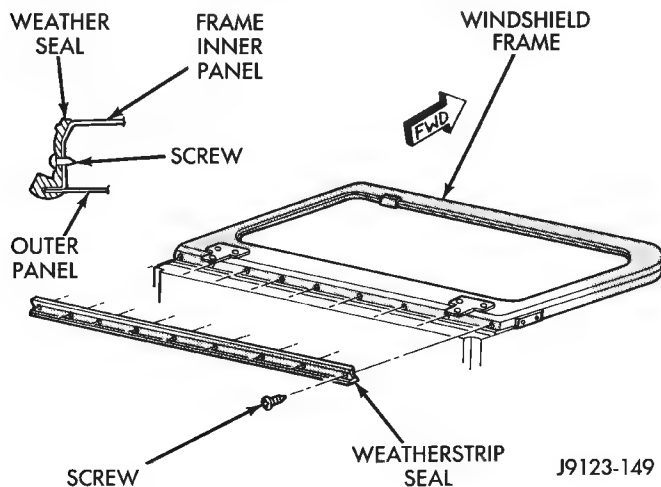
(7) Install the windshield wipers. Refer to the installation procedure.

(8) If removed, install the sunvisors.

## WINDSHIELD FRAME WEATHERSTRIP SEAL—YJ

**REMOVAL**

The windshield frame weatherstrip seal can be removed and installed with the frame tilted forward to the full horizontal position (Fig. 4).



**Fig. 4 Windshield Frame Weatherstrip Seal**

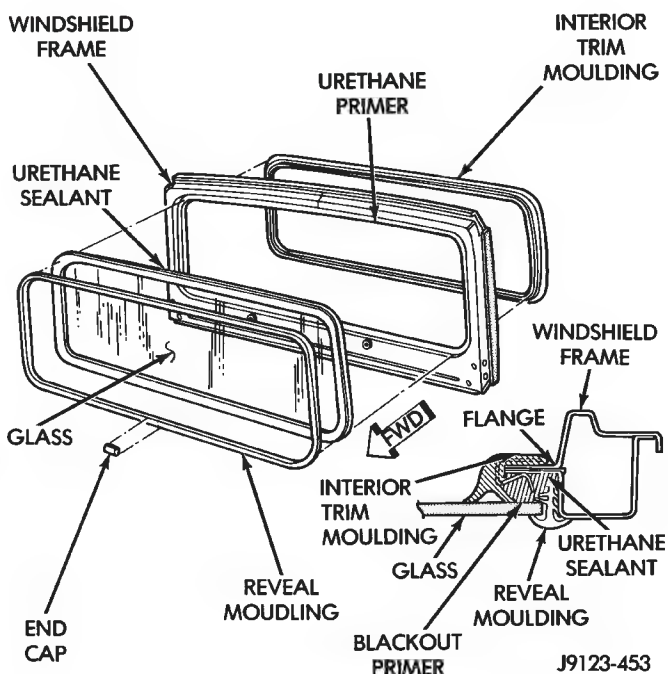
- (1) Disconnect the top from the windshield frame. If necessary, refer to the windshield frame removal procedure.
- (2) Remove the holddown bracket retaining screws from the cowl.
- (3) Tilt the windshield frame forward to the full horizontal position (Fig. 4).
- (4) Remove the retaining screws and the weatherstrip seal from the windshield frame (Fig. 4).

**INSTALLATION**

- (1) Position the weatherstrip seal on the windshield frame. Ensure that the frame outer panel flange is properly seated in the seal groove.
- (2) Install the seal retaining screws in the windshield frame (Fig. 4).
- (3) Tilt the windshield frame rearward to the full vertical position.
- (4) Install the holddown bracket retaining screws in the cowl.
- (5) Connect the top to the windshield frame. If necessary, refer to the windshield frame installation procedure.

## WINDSHIELD GLASS—YJ

The one-piece windshield glass (Fig. 5) is comprised of two laminated sheets of glass. The glass is bonded to the windshield frame with urethane adhesive (Fig. 5). This method of windshield glass installation complies with the applicable Federal Motor Vehicle Safety Standards (FMVSS).



**Fig. 5 Windshield Components**

**REMOVAL/INSTALLATION METHODS**

For windshield glass removal use a razor knife or an electric hot knife to cut through the urethane. This removal method applies in all instances.

Depending on the circumstances, either one of two windshield glass installation methods can be used.

The short method is used when the windshield glass is removed intact and the windshield frame pinchweld flanges do not require repair.

The extended method must be used when a windshield frame and/or a pinchweld flange is damaged. The extended method must also be used when the urethane no longer adheres to either the windshield glass or the frame pinchweld flanges.

Remove windshield glass according to the procedure described below. Next, determine the condition of the adhesive bond and the windshield frame flanges, and then select the installation method required.

**When the windshield glass short installation method is used, an even, uniform bead of urethane adhesive must remain on the frame pinchweld flanges. This adhesive bead is needed as a base for the replacement glass.**

**If the extended installation method is used, the original windshield interior trim molding must be removed and discarded. The adhesive cannot be removed from the original molding.**

**REMOVAL**

- (1) Cover body surface areas with protective covering to avoid paint damage and extra clean-up time.
- (2) Remove the windshield wiper arms, the reveal molding (Fig. 5) and the rearview mirror. If necessary, refer to the applicable removal procedures.
- (3) Make a preliminary cut around the **perimeter**

of the windshield glass along the glass edge with a razor knife.

**CAUTION:** When cutting through the urethane with a hot knife blade, do not allow the knife blade to remain stationary at any location.

(4) Cut the adhesive bead with a hot knife and a straight or hooked knife blade.

(5) Start the hot knife blade between the glass and the urethane. Next, cut the adhesive as close to the glass edge as possible. Allow as much adhesive to remain on the frame flange as possible. **For best cutting results, clean the knife blade frequently with steel wool while the blade is hot.**

(6) Remove the windshield glass from the frame (Fig. 5).

(7) After the hot knife blade has cooled, clean the hot knife blade with solvent and a cloth. Sharpen the blade with a fine-tooth file.

(8) If the extended windshield glass installation method will be used, remove and discard the interior trim molding (Fig. 5).

#### INSTALLATION—SHORT METHOD

Normally, after a windshield is installed, the rear-view mirror bracket also requires installation. If so, refer to the rearview mirror bracket replacement procedure. **Do not install bracket until after windshield installation is completed.**

(1) Inspect the windshield frame pinchweld flanges (Fig. 5) Prime any bare spots with urethane primer. Allow a minimum of 18 minutes for dry time.

(2) Inspect the urethane bead for high spots. Level the bead by shaving off high spots with a razor knife. This is necessary for a flush-fit of the windshield glass.

(3) Inspect the windshield molding. Replace the molding if it has broken, distorted or ineffective retainers.

(4) Clean the outer edge of the windshield glass with naphtha or a similar product.

(5) Prime the outer perimeter of the interior side of the glass 16 mm (5/8 inch) from the edge. Use a wipe-off type urethane primer and wipe the glass dry after primer application.

(6) Place the windshield glass in the frame on the pinchweld flanges and inspect for gaps in the urethane adhesive. Gaps in excess of 3 mm (1/8 inch) must be filled with additional urethane adhesive.

(7) Adjust windshield glass position until it is aligned with the flanges and the adhesive. Next, make alignment marks on glass and body with a grease pencil.

(8) Remove the windshield glass and position it on a flat surface.

(9) If the replacement windshield glass does not have blackout primer:

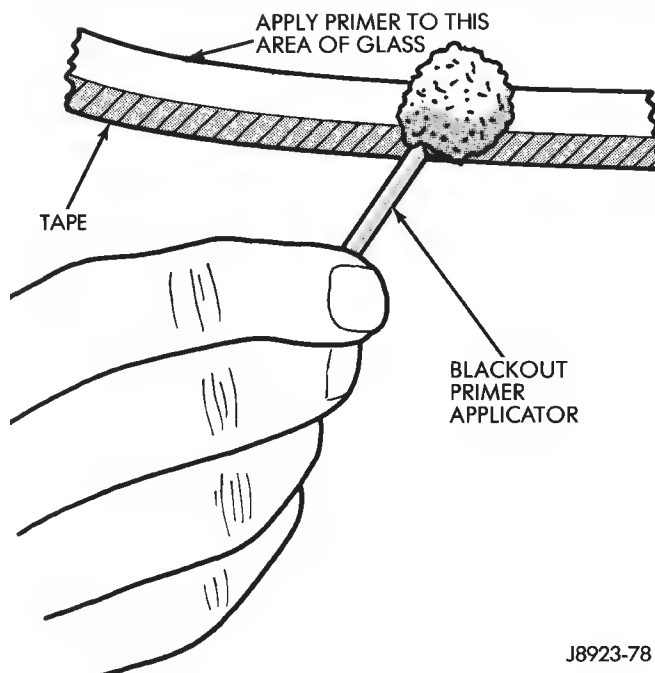
- Attach a 25-mm (1-in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass (Fig. 6).

- **Attach the tape only to the interior side of the glass.**

- Thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 6).

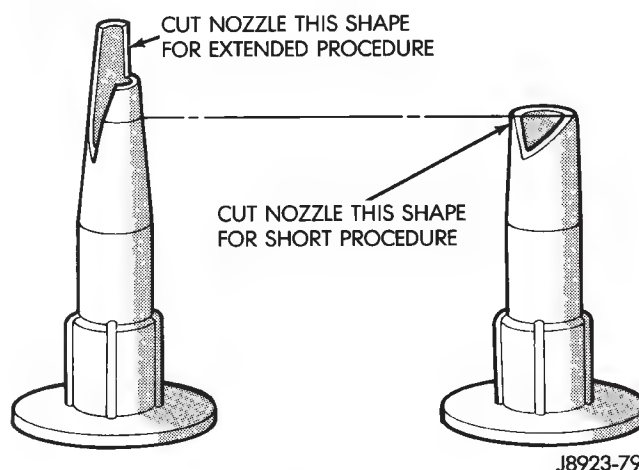
- Allow the primer to dry for at least 10-12 minutes.

(10) Cut the urethane adhesive applicator nozzle



**Fig. 6 Blackout Primer Application**

(Fig. 7).



**Fig. 7 Applicator Nozzle Preparation**

(11) Apply a 3-mm (1/8-in) diameter bead of urethane to the surface area.



**CAUTION:** Be prepared to install the windshield glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

(12) Align the windshield with the grease pencil marks (or the tape strips) and position windshield on frame flanges.

(13) Force the windshield glass inward just enough to wet-out and set urethane. Use care to avoid excessive squeeze-out of adhesive.

(14) Water test the windshield with a cold water spray after installation. Do not direct high pressure streams of water directly at the urethane. Use a moderate spray only. If any leaks are detected, apply urethane as necessary.

(15) Install the windshield reveal molding and (if used) remove the masking tape from the inner surface of the glass.

(16) Install all removed components and clean the vehicle. If necessary, refer to the applicable installation procedures.

(17) Open windows and liftgate to prevent pressure build-up while the urethane is curing.

(18) Install the rearview mirror on the bracket and tighten the mirror setscrew with 2 N·m (15 in-lbs) torque.

#### INSTALLATION—EXTENDED METHOD

Normally, after a windshield is installed, the rearview mirror bracket also requires installation. **Do not install the bracket until after the windshield installation is completed.**

(1) Remove all of the original urethane from all the frame pinchweld flanges. Use an electric hot knife and a plow-type knife blade to remove the adhesive.

(2) Inspect and repair the windshield frame and the pinchweld flanges as necessary.

(3) Inspect and replace the reveal molding if the retainers are damaged.

(4) Prime the frame pinchweld flanges with a urethane base primer. However, if the flange is top-coated with paint, prime the flanges with a paint finish primer. **This is important because urethane adhesive will not adhere to all top coat paints.**

(5) Install the replacement interior trim molding (Fig. 5) on the frame pinchweld flanges (Fig. 5).

(6) Install and inspect the fit of the windshield glass on the pinchweld flanges according to the following instructions:

- Position the windshield glass on the flanges and adjust the position until it is correctly aligned within the windshield frame.
- Measure the gap between the frame and the glass around the entire perimeter of the glass and the flange.
- The gap should be at least 3 mm (1/8 in) but no more than 6 mm (1/4 in) at any point around the pe-

rimeter, and the flanges should be in complete contact with the glass around the perimeter of the frame.

(7) If the pinchweld flanges require repair, remove the windshield glass and straighten, align, or repair the flange(s) as necessary.

(8) Position the windshield on the flanges and inspect the windshield fit again. If the fit is acceptable, mark windshield final position on the glass and the frame. The marks (or masking tape) will be used for installation alignment reference.

(9) If the replacement windshield glass does not have blackout primer:

- Attach a 25-mm (1-in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass (Fig. 6).
- **Attach the tape only to the interior side of the glass.**
- Thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass (Fig. 6).
- Allow the primer to dry for at least 10-12 minutes.

(10) Cut the urethane adhesive applicator nozzle (Fig. 7).

(11) Apply a 3-mm (1/8-in) diameter bead of urethane to the surface area.

**CAUTION:** Be prepared to install the windshield glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

(12) Align windshield with reference marks (or the tape strips) and position it on the frame pinchweld flanges.

(13) Force the windshield glass inward just enough to wet-out and set urethane. Use care to avoid excessive squeeze-out of adhesive.

(14) Water test the windshield with a cold water spray after installation. Do not direct high pressure streams of water directly at the urethane. Use a moderate spray only. If any leaks are detected, apply urethane as necessary.

(15) Install the windshield reveal molding and (if used) remove the masking tape from the inner surface of the glass.

(16) Install all the other previously removed components and clean the vehicle. If necessary, refer to the applicable installation procedures.

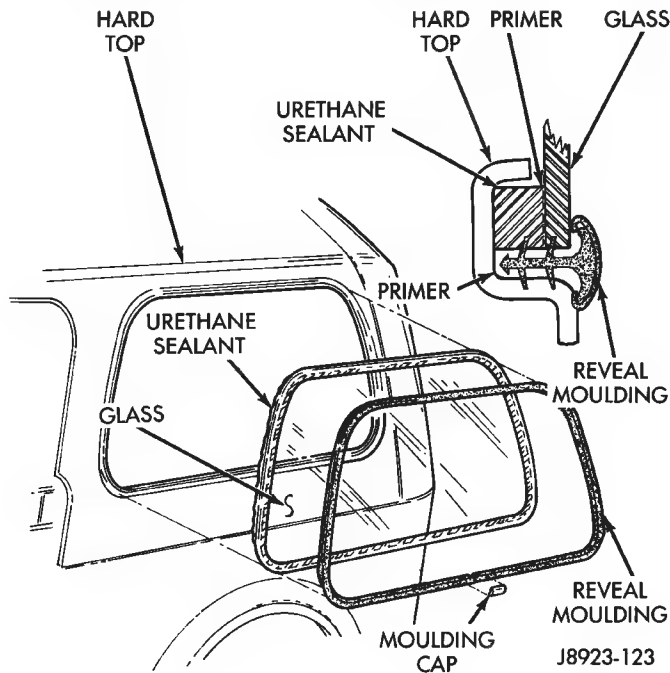
(17) Open windows and liftgate to prevent pressure build-up while the urethane is curing.

(18) Install the rearview mirror on the bracket and tighten the mirror setscrew to 2 N·m (15 in-lbs) torque.

## HARD TOP QUARTER WINDOW GLASS—YJ

### REMOVAL

- (1) Cover surface areas with protective covering to avoid paint damage and extra clean-up time.
- (2) Remove the reveal molding (Fig. 8).



**Fig. 8 Hard Top Quarter Window Glass**

- (3) Make a preliminary cut around the perimeter of the window glass along the glass edge with a razor knife.

**CAUTION:** When cutting through the urethane with a hot knife blade, do not allow the knife blade to remain stationary at any location.

- (4) Cut the adhesive bead with a hot knife and a hooked knife blade.

(5) Start hot knife between glass and urethane. Next, cut the adhesive as close to the glass edge as possible. Allow as much adhesive to remain on the window opening flange as possible. **For best cutting results, clean the knife blade frequently with steel wool while the blade is hot.**

- (6) Remove the window glass from the opening (Fig. 8).

- (7) After the hot knife blade has cooled, clean the hot knife blade with solvent and a cloth. Sharpen the blade with a fine-tooth file.

### INSTALLATION

- (1) Inspect the window opening (Fig. 8) Prime any bare spots with urethane primer. Allow a minimum of 18 minutes for dry time.

- (2) Inspect the urethane bead for high spots. Level the bead by shaving off high spots with a razor knife. This is necessary for a flush-fit of the window glass.

- (3) Inspect the window molding. Replace the molding if damaged.

- (4) Clean the outer edge of the window glass with naphtha or a similar product.

- (5) Prime the outer perimeter of the interior side of the glass 16 mm (5/8 inch) from the edge. Use a wipe-off type urethane primer and wipe the glass dry after primer application.

- (6) Place windshield in the opening and inspect for gaps in the urethane. Gaps in excess of 3 mm (1/8 inch) must be filled with urethane.

- (7) Adjust window glass position until it is aligned with the opening and the adhesive.

- (8) Remove the window glass and position it on a flat surface.

- (9) If the replacement window glass does not have blackout primer:

- Attach a 25-mm (1-in) wide masking tape band around the interior side of the glass 16 mm (5/8 in) from the edge of the glass.

- **Attach the tape only to the interior side of the glass.**

- Thoroughly mix and apply blackout primer to the 16 mm (5/8 in) surface area around the interior side of the glass.

- Allow the primer to dry for at least 10-12 minutes.

- (10) Apply a 3-mm (1/8-in) diameter bead of urethane to the surface area with the blackout primer on the interior side of the glass.

**CAUTION:** Be prepared to install glass immediately after applying the adhesive. The adhesive begins to cure within 10-15 minutes.

- (11) Align the window glass with the grease pencil alignment reference marks (or the tape strips) and position it in the window opening.

- (12) Force glass inward just enough to wet-out and set urethane. Use care to avoid excessive squeeze-out of adhesive.

- (13) Water test with a cold water spray after installation. Do not direct high pressure streams of water directly at the urethane. Use a moderate spray only. If any leaks are detected, apply urethane as necessary.

- (14) Install the window reveal molding and (if used) remove the masking tape from the inner surface of the glass.

- (15) Clean the vehicle.

- (16) Open windows and liftgate to prevent pressure build-up while the urethane is curing.

## STATIONARY GLASS WATER LEAK DETECTION AND REPAIR—YJ

The sources of water leaks around windshield/window glass can be sealed without removing the windshield/window glass. If the glass is firmly bonded and only has a small leak, seal areas with a liquid butyl sealant. However, if weatherstrip seal or urethane sealant has large breaks, a urethane sealant must be used.

### LEAK TEST

Water test the windshield/window with a spray only. **Do not use hard streams of water.** Work from the bottom to the top of the windshield/window.

Water test the windshield/window with a spray only. **Do not use hard streams of water.** Work from the bottom to the top of the windshield/window glass.

If a water leak exists between the glass and weatherstrip seal (or between the seal and a body flange):

- Push the glass outward at the leak area, and determine the extent of the gap.

Push the glass outward while a helper sprays the windshield/window glass with water.

## SEALING MINOR LEAK AREAS

(1) Thoroughly clean and remove all foreign material from the leak area. Dry the area with compressed air.

(2) Seal the leak area with butyl sealant. Allow the sealant to cure for at least 1/2 hour. Next, water test the glass to ensure that the leak area is sealed.

## SEALING MAJOR LEAK AREAS

(1) Thoroughly clean the leak area.

(2) As applicable, apply primer to either glass or weatherstrip seal leak area. Use blackout primer on the glass and urethane primer on the weatherstrip seal.

(3) Apply urethane to the leak area. Use an adhesive cartridge with a pointed nozzle.

(4) Water test glass immediately with cold water spray. Allow the water to spill over the edge of glass and weatherstrip seal.

(5) Apply additional adhesive, if necessary.

(6) Remove any excess adhesive.



INTERIOR COMPONENTS

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INSTRUMENT PANEL—YJ

The instrument panel is constructed of sheet metal and is attached to cowl panel with screws. The instrument panel and defroster grille pad is attached to the instrument panel with screws.

INSTRUMENT CLUSTER AND GAUGE HOUSINGS—YJ

REMOVAL

(1) Remove the instrument cluster and gauge housing attaching screws (Fig. 1, 2 and 3).

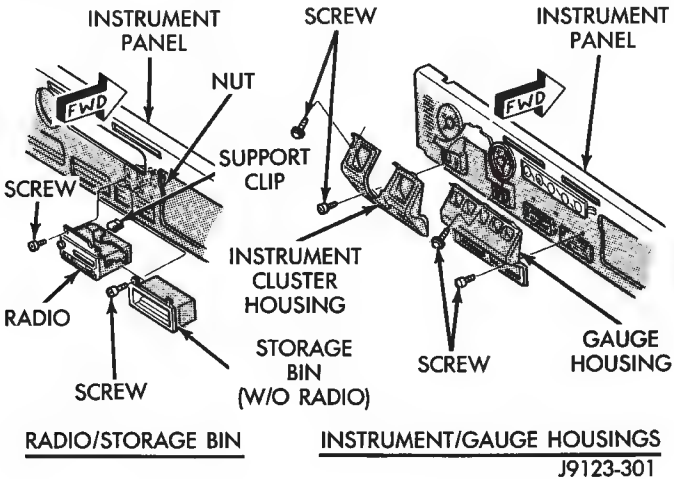


Fig. 1 Instrument Cluster/Gauge Housing and Radio

(2) Disconnect the switch illumination bulb socket from the instrument cluster housing (Fig. 4). Remove the housings from the instrument panel (Fig. 1).

INSTALLATION

- (1) Position the instrument cluster and gauge housings on the instrument panel (Fig. 1). Connect the switch illumination bulb socket to the instrument cluster housing (Fig. 4).
- (2) Install the attaching screws (Fig. 1, 2 and 3). Tighten the screws to 3 N·m (24 in-lbs) torque.

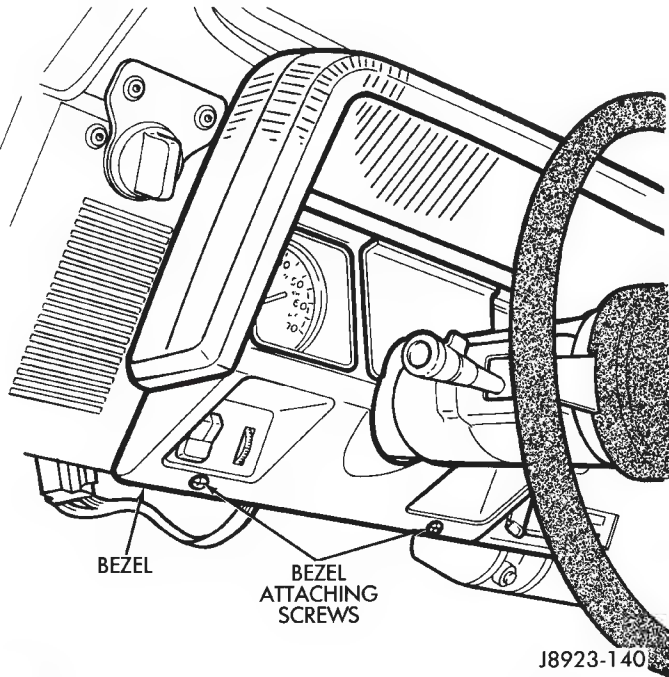


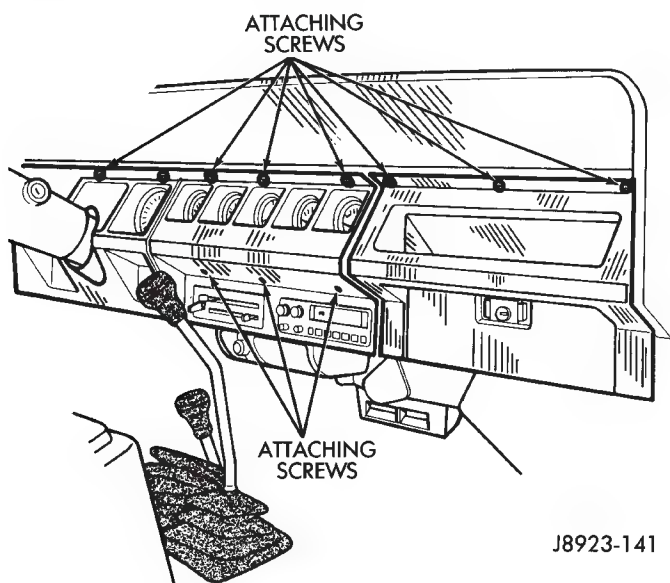
Fig. 2 Instrument Cluster Housing Lower Screws  
 INSTRUMENT CLUSTER BEZEL—YJ

REMOVAL

- (1) Remove the instrument cluster housing attaching screws (Fig. 1, 2 and 3).
- (2) Disconnect the switch illumination bulb from instrument cluster (Fig. 4). Remove the housing from the instrument panel (Fig. 1).
- (3) Remove the bezel retaining screws.
- (4) Disconnect the accessory switch, warning indicator, rheostat and lamp wire harness connectors from the bezel (Fig. 5).
- (5) Remove the bezel from the instrument panel (Fig. 6).

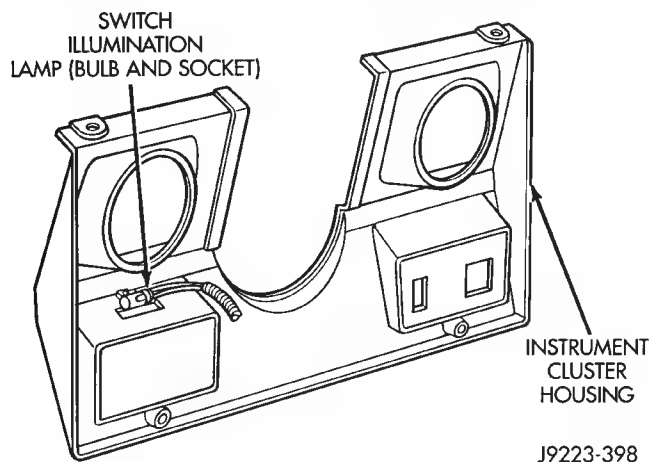
INSTALLATION

- (1) Position bezel at the instrument panel and connect accessory switch, warning indicator, rheostat and lamp wire harness to bezel.



J8923-141

**Fig. 3 Instrument Gauge Housing Screws**



J9223-398

**Fig. 4 Instrument Cluster Housing and Lamp**

(2) Install the bezel screws. Tighten the screws to 3 N·m (24 in-lbs) torque.

(3) Position the instrument cluster housing on the instrument panel (Fig. 1). Connect the switch illumination bulb socket to the instrument cluster housing (Fig. 4).

(4) Install the attaching screws (Fig. 1, 2 and 3). Tighten the screws to 3 N·m (24 in-lbs) torque.

## INSTRUMENT PANEL COMPONENTS—YJ

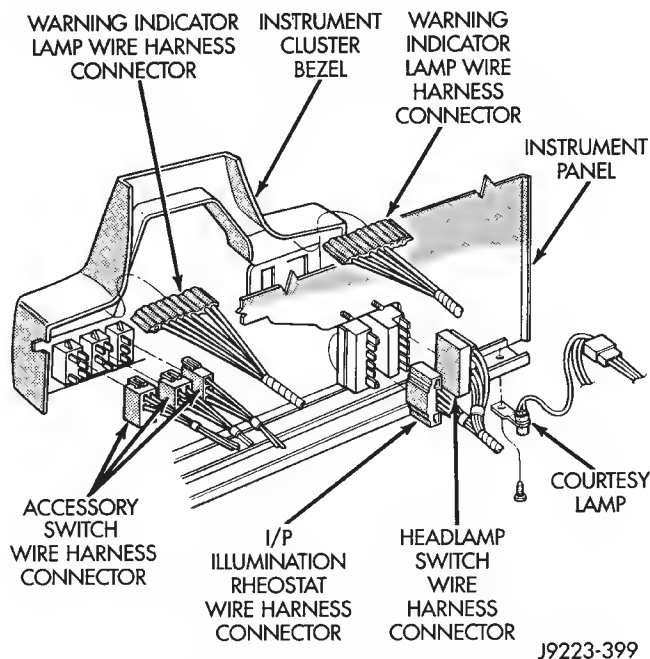
For service procedures regarding individual I/P components refer to Group 8, Electrical.

## GLOVE BOX—YJ

### REMOVAL

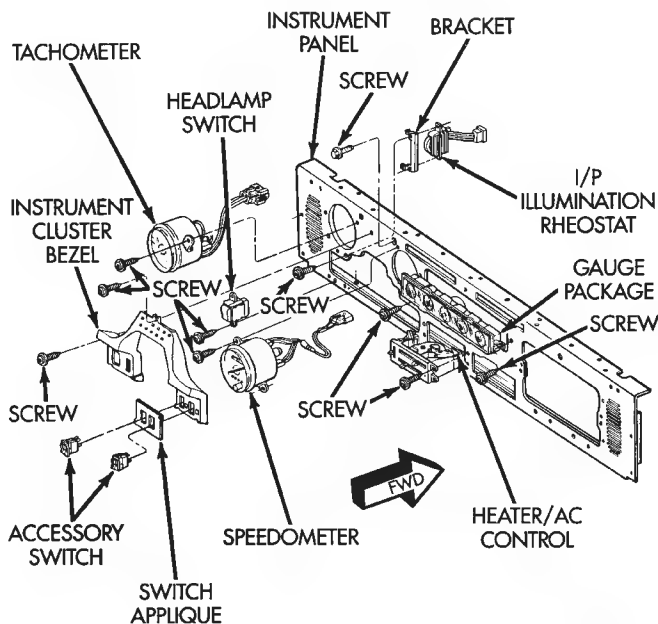
(1) Remove the glove box-to-instrument panel retaining screws (Fig. 7).

(2) Pull the glove box housing out of the instrument panel opening (Fig. 14).



J9223-399

**Fig. 5 Instrument Cluster Bezel**



J9223-400

**Fig. 6 Instrument Panel Components**

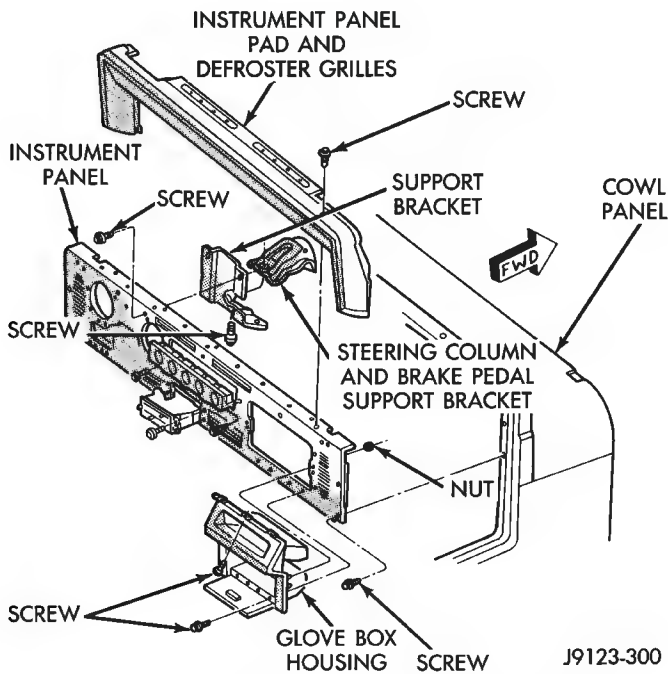
### INSTALLATION

(1) Position the glove box housing in the instrument panel opening.

(2) Install the glove box-to-instrument panel screws. Tighten the screws securely.

### DOOR AND HINGE

The glove box door hinge attaching screw holes are elongated for adjustment. The hinge screws can be loosened and the door moved in direction for the best fit within the door opening.



**Fig. 7 Glove Box Removal/Installation**

#### REMOVAL

- (1) Remove the hinge-to-glove box housing retaining screws.
- (2) Remove the door and the hinge from the glove box housing.
- (3) If necessary, remove the retaining screws and the hinge from the glove box door.

#### INSTALLATION

- (1) If removed, install the hinge on the glove box door with screws. Tighten the screws securely.
- (2) Position the glove box door and hinge on the glove box housing.
- (3) Install the hinge-to-glove box housing screws and adjust the door for proper fit within the opening. Tighten the screws securely.

#### DOOR LATCH STRIKER ADJUSTMENT

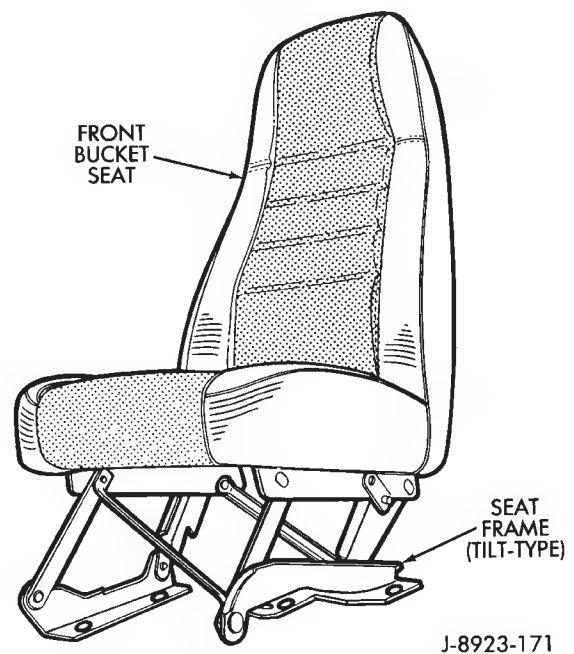
The glove box door lock cylinder latch striker is attached to the glove box housing opening with screws. The striker can be moved in or out for adjustment.

#### SEATS—YJ

Bucket-type front seats are standard on YJ vehicles. The rear passenger seat is a forward pivoting/folding, bench-type seat.

#### BUCKET SEATS—YJ

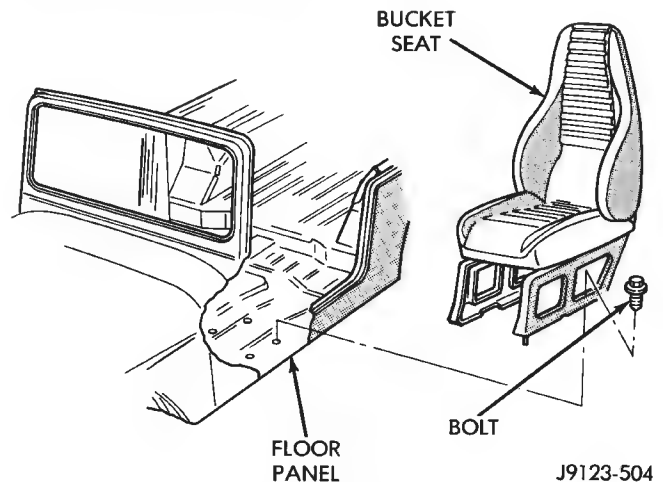
The passenger-side (RH), front bucket seat frame is the tilt-type (Fig. 1). The driver-side (LH) seat is fixed in-place. Both the passenger-side (RH) seat and the driver-side (LH) seat have fore-and-aft track adjustment.



**Fig. 1 Passenger-Side Bucket Front Seat**

#### REMOVAL

- (1) Remove the bolts attaching the seat frame to the floor panel (Fig. 2).



**Fig. 2 Bucket Front Seat**

- (2) Remove the seat from the vehicle.

#### INSTALLATION

- (1) Position the seat in the vehicle.
- (2) Install seat frame bolts into floor panel. Tighten to 33 N·m (25 ft. lbs.) torque.

#### REAR BENCH SEAT—YJ

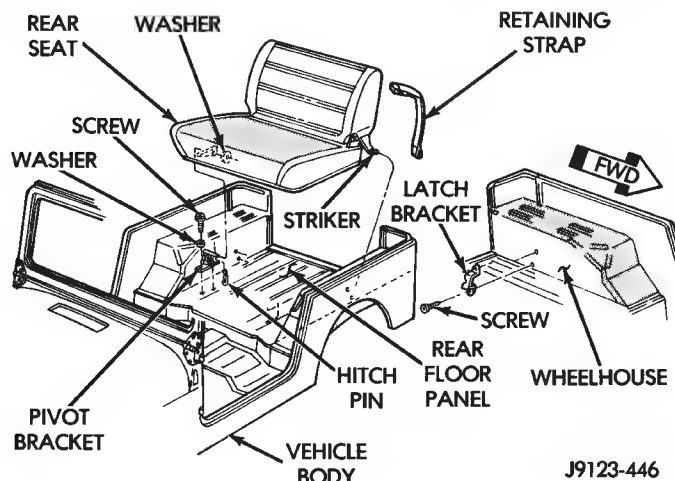
The rear bench seat pivot brackets are attached to the floor panel with screws. The front of the seat is attached to the pivot brackets with washers and hitch pins.



If the floor brackets are not to be replaced, it is not necessary to remove the rear screws to remove the rear seat. Follow step (3) for seat disengagement.

### REMOVAL

- (1) Disengage the strikers from the latches (Fig. 3).
- (2) Remove the screws attaching the seat frame to



**Fig. 3 Pivoting/Folding, Bench-Type Rear Seat**

the floor panel.

- (3) Remove the hitch pin, disengage the seat frame from the pivots and remove the seat from the vehicle (Fig. 3).

### INSTALLATION

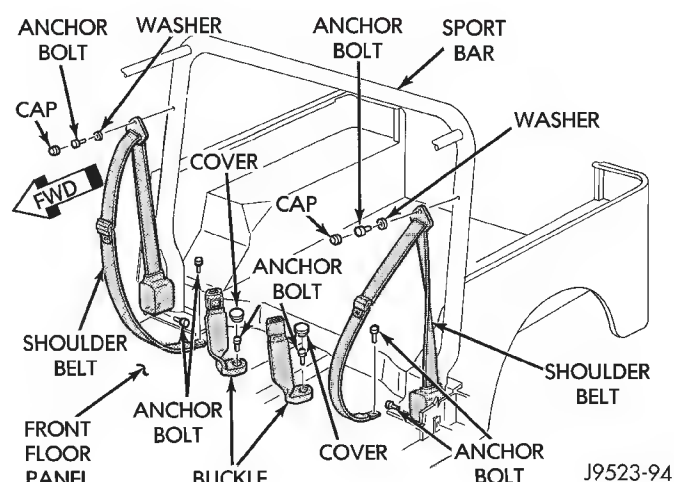
- (1) Position the seat on the rear floor panel and engage the seat frame with the pivots.
- (2) Install the seat frame screws to the floor panel. Tighten to 37 N·m (28 ft. lbs.) torque.
- (3) Install the hitch pin.
- (4) Pivot the seat rearward and engage the strikers with the latch brackets.

### FRONT SHOULDER BELTS—YJ

#### REMOVAL

- (1) Remove the cover and the shoulder belt buckle anchor bolt from the floor panel (Fig. 4).
- (2) Remove the shoulder belt buckle from the floor panel (Fig. 4).
- (3) Remove the cap, shoulder belt upper anchor bolt, washer and guide from the sport bar.
- (4) Remove the retractor anchor bolt from the door sill (Fig. 4).
- (5) Remove the anchor bolt that attaches the lower part of the shoulder belt to the floor panel (Fig. 4).
- (6) Remove the shoulder belt from the vehicle.

**CAUTION:** Inspect the shoulder belt for evidence of wear, cuts and fraying. Replace any belt that is damaged.



**Fig. 4 Front Shoulder Belts**

### INSTALLATION

- (1) Position the end of the shoulder belt at the floor panel and the retractor at the door sill.
- (2) Install the anchor bolts (Fig. 4). Tighten the bolts to 41 N·m (30 ft-lbs) torque.
- (3) Position the shoulder belt guide on the sport bar and install the anchor bolt (Fig. 4). Tighten the bolt to 41 N·m (30 ft-lbs) torque.
- (4) Install the cap on the anchor bolt.
- (5) Install the shoulder belt buckle at the floor panel with the anchor bolt. Tighten the bolt to 41 N·m (30 ft-lbs) torque.
- (6) Install the cover on the anchor bolt.

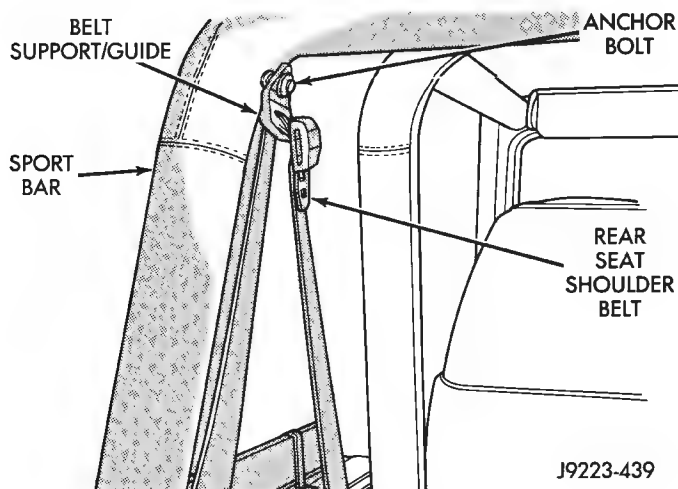
### REAR SHOULDER BELTS—YJ

#### REMOVAL

- (1) Remove the shoulder belt buckle anchor bolt from the rear floor panel.
- (2) Remove the shoulder belt buckle from the rear floor panel.
- (3) Remove the shoulder belt upper anchor bolt, washer and support/guide from the sport bar (Fig. 5).
- (4) Remove the retractor anchor bolt from the quarter panel.
- (5) Remove the anchor bolt that attaches the lower part of the shoulder belt to the floor panel.
- (6) Remove the shoulder belt from the vehicle.

### INSTALLATION

- (1) Position the lower end of the shoulder belt at the floor panel and the retractor at the quarter panel.
- (2) Install the anchor bolts. Tighten the bolts to 41 N·m (30 ft-lbs) torque.
- (3) Position the shoulder belt support/guide on the sport bar and install the anchor bolt (Fig. 5). Tighten the bolt to 41 N·m (30 ft-lbs) torque.



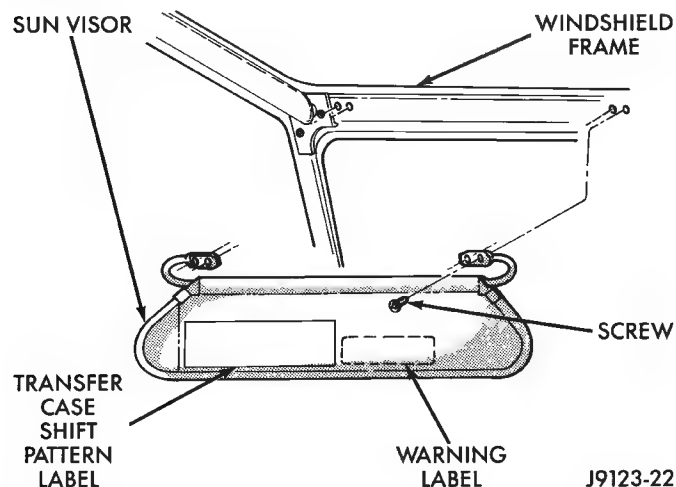
**Fig. 5 Rear Shoulder Belt**

(4) Install the shoulder belt buckle at the floor panel with the anchor bolt. Tighten the bolt to 41 N·m (30 ft-lbs) torque.

## SUNVISORS—YJ

### REMOVAL

(1) Remove the screws that attach the sunvisor arm support brackets to the windshield frame (Fig. 6).



**Fig. 6 Sunvisor Removal/Installation**

(2) Remove the sunvisor from the windshield frame.

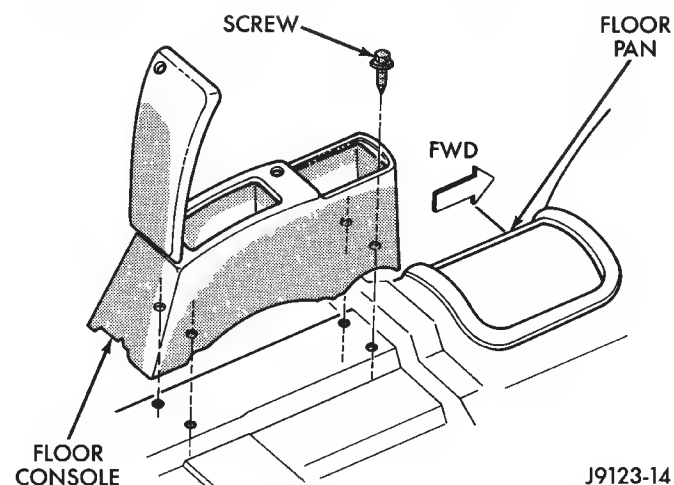
(3) Remove the sunvisor from the vehicle.

### INSTALLATION

- (1) If applicable, replace the labels (Fig. 6).
- (2) Position the sunvisor on the windshield frame and align the arm support bracket holes with the frame.
- (3) Install the screws that attach the sunvisor arm support brackets to the frame. Tighten the screws securely.

## FLOOR CONSOLES—YJ

The floor console (Fig. 7) are fabricated from molded plastic material. The console covers have a locking top and provisions for beverage containers.



**Fig. 7 Floor Console**

### REMOVAL

- (1) Open the console cover.
- (2) Remove the screws that attach the console to the floor panel (Fig. 7).
- (3) Remove the console from the vehicle.

### INSTALLATION

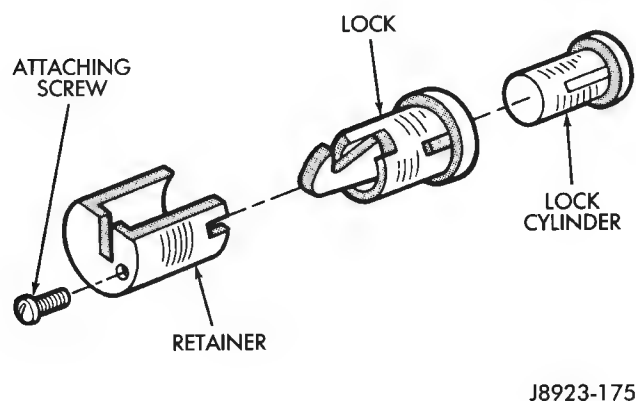
- (1) Position the console in the vehicle.
- (2) Align the console screw holes with the holes in the floor panel and install the attaching screws.
- (3) Close and the console cover.

### COVER AND SEAL REPLACEMENT

Console cover replacement involves removing the hinge screws from the console, and components. The seal can be replaced with the cover in the open position.

### COVER LOCK REPLACEMENT

- (1) Open the console cover.
- (2) Remove the screw that attaches the retainer to the lock and then remove the retainer from the lock (Fig. 8).
- (3) Remove the lock, cylinder and key as a unit from the console cover (Fig. 8).
- (4) Manually position the lock latch to simulate a closed cover position.
- (5) Insert the key and cylinder into the lock and turn clockwise. Release the lock latch and remove the key.
- (6) Insert the assembled lock in the console cover hole (Fig. 8) and install the retainer with the attaching screw.

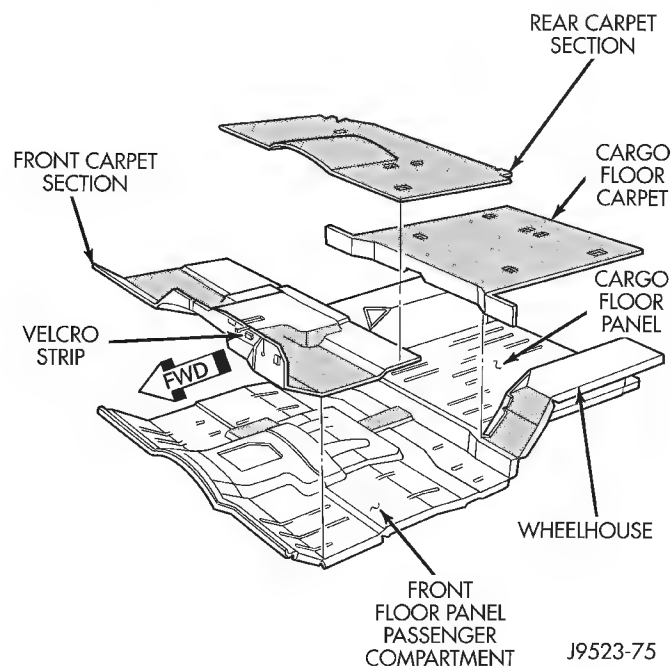


**Fig. 8 Console Cover Lock Removal/Installation**  
**CARPET—YJ**

### **PASSENGER COMPARTMENT FRONT CARPET SECTION**

The passenger compartment front carpet section (Fig. 1) is retained in place by the:

- Transmission/transfer case shift lever boots (Fig. 2).
- Passenger compartment rear carpet section.
- Velcro strips.

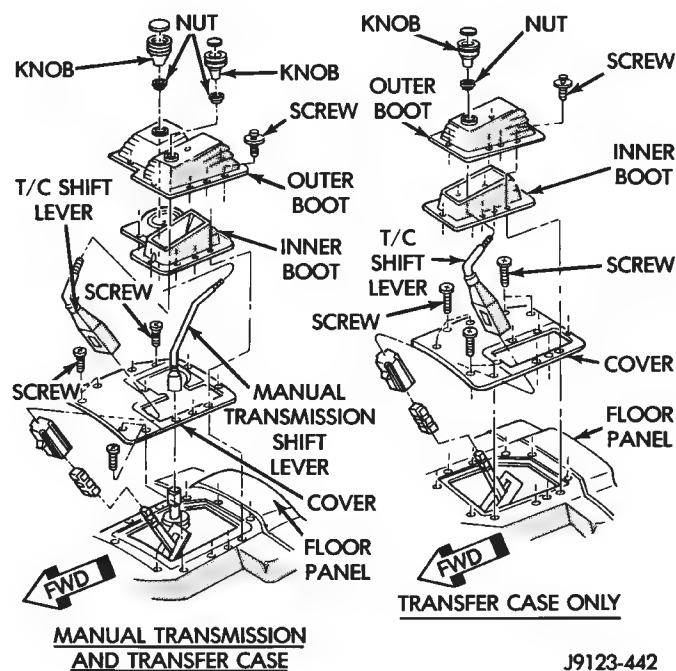


**Fig. 1 Floor Carpets**

To remove and install a front carpet section (Fig. 1), it is necessary to remove and then install the shift lever boots (Fig. 2).

Refer to the applicable component removal/installation procedures in this group.

When replacing a front carpet, position and cut openings in carpet with a razor knife for shift levers and boots (Fig. 2).



**Fig. 2 Shift Lever Boots**

### **PASSENGER COMPARTMENT REAR CARPET SECTION**

The rear floor carpet section in the passenger compartment (Fig. 1) is retained in place by the:

- Front seats.
- Floor console.
- Shoulder belt buckle anchors.
- Door sill carpets.

To remove and then install the rear carpet section (Fig. 1), it is necessary to remove and then install the front seats and the floor console.

Refer to the applicable component removal/installation procedures in this group.

### **CARGO FLOOR CARPET**

The cargo floor carpet (Fig. 1) is retained in place by the:

- Rear seat.
- Shoulder belt buckle anchors.
- Wheelhouse carpets.

To remove and then install a cargo floor carpet, it is necessary to remove and then install the rear seat.

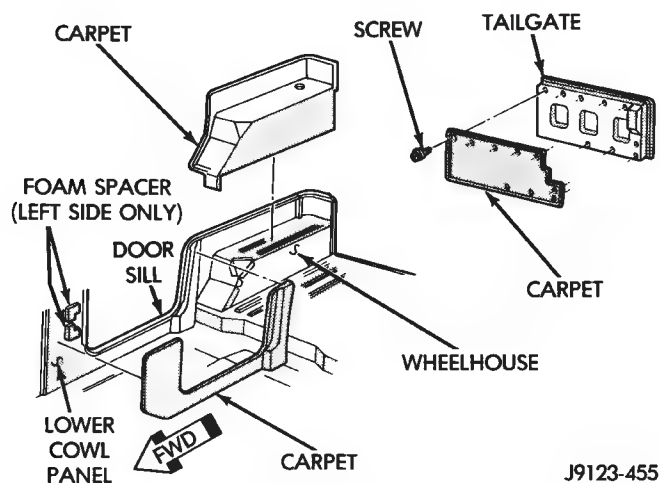
Refer to the applicable component removal/installation procedures in this group.

### **WHEELHOUSE, DOOR SILL AND TAILGATE CARPETS**

The wheelhouse, door sill and tailgate carpets (Fig. 3) are retained in place with:

- Adhesive.
- Velcro strips.
- Screws.





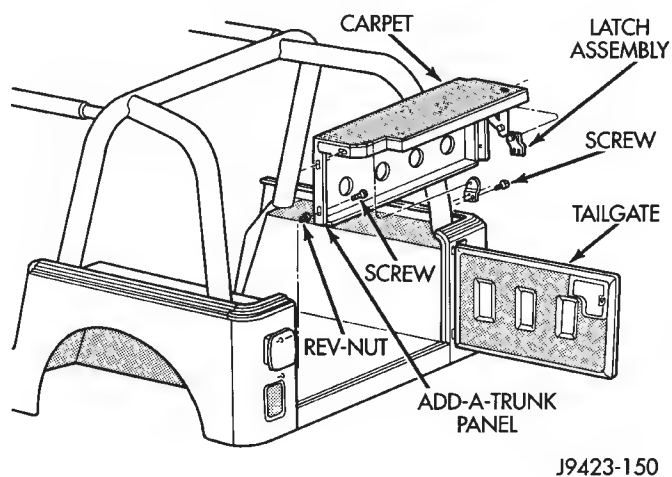
**Fig. 3 Wheelhouse, Door Sill and Tailgate Carpets**

A replacement carpet for any of the three may require some modifications to accommodate the attached components.

### ADD-A-TRUNK—YJ

#### REMOVAL

- (1) Remove the nylon thumb screws (Fig. 4).
- (2) Remove the trunk.



**Fig. 4 Add-A-Trunk Assembly**

#### INSTALLATION

- (1) Position the trunk in the cargo space and insert the nylon thumbscrews with washers through the predrilled holes and into the well nuts.
- (2) Tighten the thumb screws.

## PAINT

### INTRODUCTION

Exterior vehicle body colors are identified on the Vehicle Code plate. The plate is located on the left side of the dash panel in the engine compartment. The color code location is described in the Introduction of this manual. The color names provided in the Paint and Trim Code Description chart are the color names used on most repair product containers. The color names in the new vehicle ordering guides may vary depending on vehicle line but use the same color code.

### BASE COAT/CLEAR COAT FINISH

On most vehicles a two part paint application (base coat/clear coat) is used. Color paint that is applied to primer is called base coat. The clear coat protects the base coat from ultra violet light and provides a durable high gloss finish.

### WET SANDING, BUFFING AND POLISHING

Minor acid etching, orange peel or smudging in clear coat can be reduced with light wet sanding, hand buffing and polishing. If the finish has been wet sanded in the past, it can not be repeated. Wet sanding operation should be performed by a trained automotive painter.

**CAUTION:** Do not remove clear coat finish, if equipped. Base coat paint must retain clear coat to shine.

### PAINTED SURFACE TOUCH-UP

When a painted metal surface has been scratched or chipped, it should be touched-up as soon as possi-

ble to avoid corrosion. For best results, use Mopar Scratch Filler/Primer, Touch-Up Paints and Clear Top Coat. Refer to Introduction group of this manual for Body Code Plate information.

### TOUCH-UP PROCEDURE

(1) Scrape loose paint and corrosion from inside scratch or chip.

(2) Clean affected area with Mopar Tar/Road Oil Remover and allow to dry.

(3) Fill the inside of the scratch or chip with a coat of filler/primer. Do not overlap primer onto good surface finish. The applicator brush should be wet enough to puddle fill the defect without running. Do not stroke brush applicator on body surface. Allow the filler/ primer to dry hard.

(4) Cover the filler/primer with color touch-up paint. Do not overlap touch-up color onto the original color coat around the scratch or chip. Butt the new color to the original color if possible. Do not stroke applicator brush on body surface. Allow touch-up paint to dry hard.

(5) On vehicles without clear coat, the touch-up color can be lightly (600 grit) wet sanded and polished with rubbing compound.

(6) On vehicles with clear coat, Apply clear top coat to touch-up paint with the same technique as described in step 4. Allow clear top coat to dry hard. If desired, step 5 can be performed on clear top coat.

**AFTERMARKET PAINT AND TRIM REPAIR PRODUCTS—XJ**

| <b>EXTERIOR<br/>COLOR NAME</b> | <b>CHRY.<sup>1</sup><br/>CODE</b> | <b>PPG</b> | <b>BASF</b> | <b>DuPONT</b> | <b>S-W<br/>ACME<br/>M-S</b> | <b>AKZO/<br/>SIKKENS</b> |
|--------------------------------|-----------------------------------|------------|-------------|---------------|-----------------------------|--------------------------|
| Flame Red<br>C.C.              | PR4                               | 4679       | 23043       | B9326         | 46916                       | CHA93:PR4                |
| Lt. Pearlstone<br>P.C.         | HV1                               | 4189       | 22125       | B8952         | 41824                       | CHA89:HV1                |
| Aqua P.C.                      | LQE                               | 4446       | 22115       | B9233         | 45859                       | CHA92:LQE                |
| Emerald Green<br>P.C.          | PGF                               | 4639       | 23042       | B9328         | 46976                       | CHA92:PGF                |
| Moss Green<br>P.C.             | RJN                               | 47383      | 25036       | B9533         | 50277                       | CHA95:RJN                |
| Brilliant Blue<br>P.C.         | PCH                               | 4784       | 24073       | B9452         | 48538                       | CHA94:PCH                |
| Black C.C.                     | DX8                               | 9700       | 15214       | F0204         | 34858                       | CHA85:DX8                |
| Dk. Silver Met.<br>C.C.        | KS7                               | 4272       | 21077       | B9137         | 44046                       | CHA91:KS7                |
| Bright White<br>C.C.           | GW7                               | 4037       | 18238       | B8833         | 37298                       | CHA88:GW7                |

| <b>CLADDING<br/>COLOR NAME</b> | <b>CHRY.<br/>CODE</b> | <b>PPG</b> | <b>BASF</b> | <b>DuPONT</b> | <b>S-W<br/>ACME<br/>M-S</b> | <b>AKZO/<br/>SIKKENS</b> |
|--------------------------------|-----------------------|------------|-------------|---------------|-----------------------------|--------------------------|
| Bright White<br>C.C.           | GW7                   | 4037       | 18238       | B8833         | 37298                       | CHA88:GW7                |
| Lt. Pearlstone<br>P.C.         | HV1                   | 4189       | 22125       | B8952         | 41824                       | CHA89:HV1                |
| Moss Green<br>P.C.             | RJN                   | 47383      | 25036       | B9533         | 50277                       | CHA95:RJN                |
| Black C.C.                     | DX8                   | 9700       | 15214       | F0204         | 34858                       | CHA85:DX8                |
| Dk. Silver Met.<br>C.C.        | KS7                   | 4272       | 21077       | B9137         | 44046                       | CHA91:KS7                |

| <b>INTERIOR<br/>COLOR NAME</b> | <b>CHRY.<br/>CODE</b> | <b>PPG</b>                           | <b>BASF</b>    | <b>DuPONT</b>  | <b>S-W<br/>ACME<br/>M-S</b> |
|--------------------------------|-----------------------|--------------------------------------|----------------|----------------|-----------------------------|
| Charcoal<br>(HS1/HA8)          | SA                    | 34427/<br>2-1312<br>34466/<br>2-1323 | 18825<br>18826 | C8823<br>C8824 | 38500/<br>38501             |
| Dk. Sand                       | Y6                    | 26375/<br>2-1358                     | 19139          | C8914          | 40079                       |

<sup>1</sup> Herberts Standox and Spies Hecker use the Chrysler paint code as listed on the Vehicle Code Plate.



**AFTERMARKET PAINT AND TRIM REPAIR PRODUCTS—YJ**

| <b>EXTERIOR<br/>COLOR NAME</b> | <b>CHRY.<sup>1</sup><br/>CODE</b> | <b>PPG</b> | <b>BASF</b> | <b>DuPONT</b> | <b>S-W<br/>ACME<br/>M-S</b> | <b>AKZO/<br/>SIKKENS</b> |
|--------------------------------|-----------------------------------|------------|-------------|---------------|-----------------------------|--------------------------|
| Flame Red<br>C.C.              | PR4                               | 4679       | 23043       | B9326         | 46916                       | CHA93:PR4                |
| Lt. Pearlstone<br>P.C.         | HV1                               | 4189       | 22125       | B8952         | 41824                       | CHA89:HV1                |
| Aqua P.C.                      | LQE                               | 4446       | 22115       | B9233         | 45859                       | CHA92:LQE                |
| Emerald Green<br>P.C.          | PGF                               | 4639       | 23042       | B9328         | 46976                       | CHA92:PGF                |
| Moss Green<br>P.C.             | RJN                               | 47383      | 25036       | B9533         | 50277                       | CHA94:RJN                |
| Brilliant Blue<br>P.C.         | PCH                               | 4784       | 24073       | B9452         | 48538                       | CHA94:PCH                |
| Black C.C.                     | DX8                               | 9700       | 15214       | F0204         | 34858<br>M-S<br>90-5950     | CHA85:DX8                |
| Dk. Silver Met.<br>C.C.        | KS7                               | 4272       | 21077       | B9137         | 44046                       | CHA91:KS7                |
| Bright Mango<br>C.C.           | RV5                               | 4964       | 25051       | B9550         | 50505                       | CHA95:RV5                |
| Bright White<br>C.C.           | GW7                               | 4037       | 18238       | B8833         | 37298                       | CHA88:GW7                |

| <b>INTERIOR<br/>COLOR NAME</b>   | <b>CHRY.<br/>CODE</b> | <b>PPG</b>                   | <b>BASF</b>    | <b>DuPONT</b>  | <b>S-W<br/>ACME<br/>M-S</b> |
|----------------------------------|-----------------------|------------------------------|----------------|----------------|-----------------------------|
| Cinder/Lt. Charcoal<br>(HXA/HS1) | XS                    | 35215/2-1445<br>34427/2-1312 | 18825<br>21009 | C9127<br>C8823 | 44567<br>38500              |
| Spice Moss/Green<br>(LTB/RJ4)    | TJ                    | 2740/2-1466<br>47508/2-1583  | 22142          | C9253          | 45996/<br>50512             |
| Spice                            | TB                    | 27240/2-1466                 | 22142          | C9253          | 45996                       |

| <b>YJ TOP<br/>COLOR NAME</b> | <b>CHRY.<br/>CODE</b> | <b>PPG</b> | <b>BASF</b> | <b>DuPONT</b> | <b>S-W<br/>ACME<br/>M-S</b> | <b>AKZO/<br/>SIKKENS</b> |
|------------------------------|-----------------------|------------|-------------|---------------|-----------------------------|--------------------------|
| Black                        | HCX                   | 9857       | 20200       | C8833         | 42860                       | CHA90:HCX                |
| Spice                        | LTB                   | 27315      | 22155       | C9253         | 46487                       | CHA90:LTB                |
| Frost White                  | KWC                   | 91068      | 21097       | C9114         | 44958                       | CHA90:KWC                |

<sup>1</sup> Herberts Standox and Spies Hecker use the Chrysler paint code as listed on the Vehicle Code Plate.

**TORQUE SPECIFICATIONS—XJ VEHICLES**

| Component                                      | Service Set-To Torque | Service Recheck Torque     |
|------------------------------------------------|-----------------------|----------------------------|
| Hood Hinge-to-Hood Screws                      | 31 N•m (23 ft-lbs)    | 24-37 N•m (18-27 ft-lbs)   |
| Hood Hinge-to-Cowl Nuts                        | 31 N•m (23 ft-lbs)    | 24-37 N•m (18-27 ft-lbs)   |
| Hood Lock Assembly Attaching Screws            | 16 N•m (138 in-lbs)   | 14-27 N•m (125-235 in-lbs) |
| Hood Lock Striker-to-Hood Screws               | 16 N•m (138 in-lbs)   | 14-27 N•m (125-235 in-lbs) |
| Inside Hood Release Handle-to-Instrument Panel | 8 N•m (78 in-lbs)     | 7-11 N•m (65-95 in-lbs)    |
| Door Hinge Screws                              | 35 N•m (26 ft-lbs)    | 30-40 N•m (22-30 ft-lbs)   |
| Door Latch Screw                               | 9 N•m (7 ft-lbs)      | 7-11 N•m (5-9 ft-lbs)      |
| Exterior Door Handle Nut                       | 5 N•m (4 ft-lbs)      | 4-6 N•m (3-5 ft-lbs)       |
| Vent Window-to-Door Screw                      | 1 N•m (1 ft-lb)       | 0.7-21 N•m (.5-1.5 ft-lb)  |
| Door Check-to-A-pillar Screw                   | 9 N•m (7 ft-lbs)      | 7-11 N•m (5-9 ft-lbs)      |
| Door Check-to-Front Door Screw                 | 10 N•m (7 ft-lbs)     | 10-11 N•m (7.4-8.1 ft-lbs) |
| Glass Channel Bottom Screw                     | 9 N•m (7 ft-lbs)      | 7-11 N•m (5-8 ft-lbs)      |
| Vent Window Upper Screws                       | 1.2 N•m (1 ft-lb)     | 0.7-1 N•m (.5-1.5 ft-lbs)  |
| Door Glass Stud Nut                            | 6 N•m (4 ft-lbs)      | 5-7 N•m (4-6 ft-lbs)       |
| Glass Panel Bottom Screw                       | 9 N•m (7 ft-lbs)      | 7-11 N•m (5-8 ft-lbs)      |
| Vent Window Upper Screws                       | 1.2 N•m (1 ft-lb)     | 0.7-2 N•m (.5-1.5 ft-lbs)  |
| Door Latch Screws                              | 9 N•m (7 ft-lbs)      | 7-11 N•m (5-9 ft-lbs)      |
| Exterior Door Handle Nut                       | 5 N•m (4 ft-lbs)      | 4-6 N•m (3-5 ft-lbs)       |
| Liftgate Hinge Screw                           | 9 N•m (7 ft-lbs)      | 5-7 N•m (4-5 ft-lbs)       |
| Liftgate Hinge Nut                             | 9 N•m (7 ft-lbs)      | 5-7 N•m (4-5 ft-lbs)       |
| Support Ball Stud                              | 7 N•m (5 ft-lbs)      | 4-7 N•m (3-5 ft-lbs)       |
| Liftgate Latch Screw                           | 9 N•m (7 ft-lbs)      | 5-7 N•m (4-5 ft-lbs)       |
| Striker Screw                                  | 30 N•m (22 ft-lbs)    | 18-26 N•m (13-18 ft-lbs)   |

### TORQUE SPECIFICATIONS—ACCESSORIES

| COMPONENT                                                     | SERVICE SET-TO TORQUE | SERVICE RECHECK TORQUE   |
|---------------------------------------------------------------|-----------------------|--------------------------|
| Towing tube-to-reinforcement bolt                             | 50 N•m (37 ft-lbs)    | 40-60 N•m (30-44 ft-lbs) |
| T-bolt nut (M12 × 1.75)                                       | 85 N•m (63 ft-lbs)    | 75-95 N•m (56-70 ft-lbs) |
| Draw bar-to-towing tube bolt/nut (M12 × 1.75)                 | 85 N•m (63 ft-lbs)    | 75-95 N•m (56-70 ft-lbs) |
| Rear crossmember-to-plate bracket bolt                        | 52 N•m (40 ft-lbs)    | 42-62 N•m (34-46 ft-lbs) |
| Hitch ball-to-draw bar nut                                    | 217 N•m (160 ft-lbs)  | —                        |
| Draw bar-to-draw bar bumper bracket bolt (M12 X 1.75)         | 85 N•m (63 ft-lbs)    | 75-95 N•m (56-70 ft-lbs) |
| Rear bumper-to-rear bumper reinforcement plate torx head bolt | 20 N•m (15 ft-lbs)    | 15-25 N•m (11-18 ft-lbs) |
| Draw bar support bracket bolt (M12 × 1.75)                    | 85 N•m (63 ft-lbs)    | 75-95 N•m (56-70 ft-lbs) |
| Trailer Hitch Bolts (Model 15)                                |                       |                          |
| 1/2 inch                                                      | 102 N•m (75 ft-lbs)   | —                        |
| 5/8 inch                                                      | 203 N•m (150 ft-lbs)  | —                        |
| Luggage Rack Support Screws                                   | 3 N•m (28 in-lbs)     | 2-5 N•m (15-40 in-lbs)   |

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